

LEATH & ROSS'S HOMŒOPATHIC PHARMACIES

9 VERE STREET, W.,
And 5 ST. PAUL'S CHURCHYARD, E.C., LONDON.

ESTABLISHED 1835.

TRADE NOTICE—10 % Discount for Cash with Orders.

OUR £4 4s. AGENTS' CASE,

Contents realise £7 5s. 3d.



Upwards of 1,600 of these Cases have been sent out.
DIMENSIONS.—Length, 19 inches; breadth, 16 inches; height of front, 3½ inches; height of back, including flap, 11 inches.

WHOLESALE PRICE LIST OF MEDICINES PUT UP READY FOR SALE.

	TO ACCOUNT.	FOR CASH.		TO ACCOUNT.	FOR CASH.
GLOBULES. —Sixpenny Tubes ...	3/0 doz.	2/9 doz.	PILULES. —Sixpenny Bottles ...	3/0 doz.	2/9 doz.
Ninepenny " ...	4/6 "	4/1 "	Ninepenny " ...	4/6 "	4/1 "
Shilling " ...	6/0 "	5/5 "	Shilling " ...	6/0 "	5/ "
TINCTURES. —Sixpenny Bottles ...	3/0 "	2/9 "	TRITURATIONS. —Sixpenny Bottles	4/0 "	3/7 "
Ninepenny " ...	4/6 "	4/1 "	Ninepenny " ...	4/6 "	4/1 "
Shilling " ...	6/0 "	5/5 "	Shilling " ...	6/0 "	5/5 "

Liberal supply of printed matter to Agents, also Showcards, Transparencies, &c.

FOURTEEN HIGHEST AWARDS—

Including New York, 1874; Philadelphia, 1876; Paris, 1878
Medical and Health Exhibitions, London, 1881 & 1884.

"Greatly superior to the preparations in common use."—THE LANCET.

"VASELINE" PREPARATIONS

Only Genuine in our Packages.

The Bottled Goods are put up in Cardboard Cases.

MEDICINAL AND PHARMACEUTICAL.

"VASELINE" (PURE).

In collapsible tubes; 1-oz., 2-oz., and 5-oz. bottles, and in $\frac{1}{2}$ -lb., 1-lb., 5-lb. tins.

"VASELINE" (WHITE).

In collapsible tubes; 2-oz. and 5-oz. bottles; and in $\frac{1}{2}$ -lb., 1-lb. and 5-lb. tins.

"VASELINE CONFECTIONS."

One size in fancy tin box, 1s.; in boxes (wood) of 1 doz.

"CAMPHORATED VASELINE."

In 2-oz. and 4-oz. bottles, and 1-lb. tins.

"CARBOLATED VASELINE."

" " "

"VASELINE OIL."

In 8-oz. bottles and 5-lb. tins.

"VASELINE OINTMENTS."

(These Ointments are compounded with Vaseline as a base, and will be found superior to all others. They can be kept indefinitely without deterioration.)

A UNGUENTUM HYDRARGYRI (½ Mercury—Mercurial Ointment)
B UNGUENTUM ZINCI OXIDI.
C UNGUENTUM HYDRARGYRINITRATIS (Citrine Ointment).
D CERATUM RESINÆ.
E CERATUM PLUMBI SUBACETATIS (Goulard's Cerate).
F POMAT CAMPHORATUM, Fr.
G CERAT SIMPLEX (White).
Put up in jars with flat covers, four jars in a box. No charge for jar.

FOR TOILET USE.

"POMADE VASELINE."

In 2-oz. and 5-oz. bottles; also white in coloured glass-stoppered bottles and in 1-lb. and 5-lb. tins.

"VASELINE" (PERFUMED—WHITE).

In collapsible tubes; 2-oz. and 5-oz. bottles; and 1-lb. and 5-lb. tins.

"VASELINE HAIR TONIC."

One size bottles, in cardboard cases.

"VASELINE COLD CREAM."

In glass pots, three sizes, 9d., 1s. 3d., and 2s. each.

"VASELINE CAMPHOR ICE."

In fancy tin box, one size, 6d.; one dozen in box (wood).

"VASELINE COSMETIQUE."

In metal cases, two sizes.

"VASELINE SOAPS."

Superfine Toilet (one size), three tablets in box; Family Toilet (two sizes) in boxes of six tablets and three tablets; Vaseline Tar (two sizes) in boxes of six tablets and three tablets.

FARM AND HOUSEHOLD USE.

"VETERINARY VASELINE."

In $\frac{1}{2}$ -lb., 1-lb., and 5-lb. tins.

"VASELINE ANTI-CORROSIVE PASTE."

One size, tin box, 6d. each.

"VASELINE BOOT PASTE."

" " "

"VASELINE HARNESS PASTE."

One size, 1-lb. tins, 1s.

"VASELINE AXLE PASTE."

" " "

"PERFUMED LUXOR OIL."

In square cans, holding four imperial gallons; two cans in a case (wood)

CHESEBROUGH MANUFACTURING CO. (Consolidated)
(NEW YORK),

41, HOLBORN VIADUCT, LONDON, E.C.,

SOLE PROPRIETORS AND MANUFACTURERS.

PRICE LISTS POST FREE.

CAUTION.—The word "VASELINE" is the Registered Trade-mark of this Company for all their Emollient, Remedial, and other Preparations of Petroleum.

FLETCHERS' Concentrated Liquors.

Universally acknowledged by Pharmacists who have them in use to be the most Simple, Efficient, and Economical of all methods for preparing Syrups.

LIQUOR Ferri Iodidi.

EACH fluid drachm contains 34.4 grains of Iodide of Iron.

ONE volume added to seven volumes of *Syrupus*, *B.P.*, forms Syr. Ferri Iodidi of full Pharmacopœia strength.

Liquor Ferri et Quiniæ et Strychniæ Phosph.

EACH fluid drachm contains 4 grains of Phosphate of Iron, 4 grains of Phosphate of Quinia, and $\frac{1}{8}$ grain of Strychnia.

ONE volume added to three volumes of *Syrupus*, *B.P.*, forms Easton's Syrup.

LIQUOR Calcis Lactophosph.

EACH fluid drachm contains 8 grains of anhydrous Calcium Phosphate combined with Lactic Acid.

ONE volume added to seven volumes of *Syrupus*, *B.P.*, forms Syr. Calcis Lactophosph.

LIQUOR Ferri Phosph.

EACH fluid drachm contains 8 grains of Ferrous Phosphate.

ONE volume added to seven volumes of *Syrupus*, *B.P.*, forms Syr. Ferri Phosph.

LIQUOR Ferri Phosph. Comp.

EACH fluid drachm contains, in addition to the alkaline Phosphates, 4 grains of Phosphate of Iron, and 8 grains of Phosphate of Calcium, dissolved in pure Phosphoric Acid.

ONE volume added to three volumes of *Syrupus*, *B.P.*, forms "Chemical Food."

LIQUOR Ferri Hypophosph.

EACH fluid drachm contains 8 grains of Hypophosphite of Iron.

ONE volume added to seven volumes of *Syrupus*, *B.P.*, forms Syr. Ferri Hypophosph.

On receipt of a Post Card, trial samples will be sent, carriage paid, to any address.

Detailed List, containing prices and particulars of upwards of thirty different combinations, post free on application.

FLETCHER, FLETCHER & STEVENSON,
Holloway, London, N.

ECONOMICAL **COFFEE** FOR THE **MILLION** CONVENIENT



Forty large Cups of delicious Coffee made without trouble, for One Shilling, by using

SYMINGTON'S ESSENCE OF COFFEE AND CHICORY

Prepared from the finest Coffee, with a suitable proportion of Chicory, which is generally preferred.

The great and increasing demand for this Essence warrants the assertion that it is the

COFFEE FOR THE MILLION.

THOSE WHO PREFER COFFEE WITHOUT CHICORY SHOULD USE

SYMINGTON'S ESSENCE OF PURE COFFEE

(FINEST QUALITY).

Prepared from freshly-roasted Coffee Beans, the whole of the fine delicate Aroma being retained by means of a Special Process.

Their new 1s. bottle makes 30 cups of Coffee equal to that made direct from the finest Beans, while the convenience of preparing just the quantity required, from a cup to a gallon, makes it much more economical.

GOLD MEDAL awarded New Zealand Exhibition, 1882; and Calcutta Exhibition, 1884

EXTRACT FROM "BRITISH MEDICAL JOURNAL."

"Symington & Co.'s Coffee Essences have a standard reputation, and possess great merit. The Coffee Essence must be prepared in *Vacuo* at a low temperature, as the aroma of the Coffee is well preserved; in its essential qualities it does not differ in any way from a cup of Coffee made in the ordinary way. The Coffee and Milk is extremely convenient for travellers, bachelors, &c., or wherever it may be convenient to have at hand a preparation which requires only the addition of boiling water to make a cup of good Milk-Coffee."

Agent for Australia: C. A. Anderson, Clarence Street, Sydney, N.S.W. New Zealand: R. Wilkin & Co., Christchurch; Levin & Co., Wellington; and A. Heather, Auckland. United States: Davis, Sacker & Perkins, Boston. Canada: Thos. Stewart, 24 Scott Street, Toronto.

THOS. SYMINGTON & CO., CHEMISTS, EDINBURGH.

To Export Dealers
and Shippers.

This unique specialit 
proves a profitable
article of invest-
ment, as its sale is

**CERTAIN, RAPID,
AND CONSTANTLY
GROWING.**

All those who buy it
proclaim its virtues
in their circle, and
are its most zealous
advertisers.

It is put up with direc-
tions for use in
English, French,
German, Italian,
and Spanish.

THE MUCH ESTEEMED ENGLISH REMEDY

EASE
THE
COMFORT
MIRACULOUS
GOOD TEMPER
CURIE
HEALTH
FOR CORNS

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BRODIE'S
CELEBRATED
PREPARATION.

LAWRENCE & CO. 485, OXFORD ST. LONDON, SOLE PROPRIETORS.

BRODIE'S
CELEBRATED
PREPARATION.

**Brodie's Remedy
for Corns**

Is one of the most ele-
gant and attractive
articles of the day
and is now to be
found on the coun-
ters of all the prin-
cipal chemists in the
United Kingdom.

SOLE AGENCIES.

The interests of the
firms who have ob-
tained these are
scrupulously pro-
tected. The accom-
panying engraving
represents the en-
velope in which the
article is enclosed.

Sold by Chemists, in Packets, 1s. 1½d. each. May be had of all the Wholesale Houses, or direct from

LAWRENCE & CO., 19 NEW OXFORD STREET, LONDON, SOLE PROPRIETORS.

SQUIRE'S PATENTED Malted & Cooked FARINACEOUS FOOD FOR INFANTS.

PRIZE MEDAL—INTERNATIONAL HEALTH EXHIBITION.

This will be found one of the most nutritious and easily digested Foods for Infants. It is prepared from the best wheaten flour, treated with malt in solution, whereby the food becomes very largely self-digestive. This process *includes* all the soluble and digestive properties of the malt, and *avoids* the introduction of the husk, which is directed by Professor Liebig to be strained out when foods are made with ground malt.

SQUIRE'S CHEMICAL FOOD.

It is a complex solution of Iron, Lime, Soda, and Potash, in a Phosphoric Syrup. The Iron is in the Ferrous condition. This Preparation, formerly known as PARRISH'S CHEMICAL FOOD, has been purchased by Messrs. Squires. Each bottle of the genuine Preparation is secured by their seal, and the cases bear their Registered Trade Mark.

SQUIRE'S SUPER-DIASTASIC MALT EXTRACT.

EXTRACT BYNES (SQUIRE).

This Extract is prepared from the finest Malted Barley, at a very low temperature, *in vacuo*, by a special process, under the immediate supervision of one of the Firm. It possesses the highest digestive power of any Extract of Malt in the Market. A copy of the *comparative* examinations of the various kinds reported in the MEDICAL TIMES, June 21, 1884, pages 847 and 848, will be forwarded to any Physician on application. It contains only the soluble constituents of good Malt.

TWO PRIZE MEDALS—National Health Society's Exhibition, 1883; International Health Exhibition, 1884.

SQUIRE, Chemist on the Establishment in Ordinary to the Queen, 413 OXFORD STREET, LONDON.

CONDY'S FLUID—IMITATIONS.

APOLOGY AND INJUNCTION.

In the High Court of Justice (CHANCERY DIVISION).

CONDY & MITCHELL, Limited, Plaintiffs,
67 Turnmill Street, London, E.C.

ROBERT SUMNER & CO., Defendants,
WHOLESALE DRUGGISTS, 40a Lord Street, Liverpool.

We, the undersigned Defendants in this case, having, in ignorance of the legal rights of the Plaintiffs, sold disinfecting fluid under the name of "CONDY'S FLUID," such compound **NOT** being of the Plaintiffs' manufacture, hereby express our regret, and have consented to a **PERPETUAL INJUNCTION WITH COSTS** in this action.

Dated 17th day of October, 1884.

(Signed)

R. SUMNER & CO.

(Witness)

J. W. THOMPSON, Solicitor, Liverpool.



LEO'S

COMPRESSED
Chlorate of Potash.

Price to the Trade, $\frac{2}{6}$ PER DOZEN, less the usual discount. Supplied by all Wholesale Druggists. A sample dozen boxes will be sent, postage paid, to any Chemist, on receipt of $\frac{2}{6}$ in stamps.

These are the best, and are put up in the most elegant style of any cheap compressed goods in the market.

SOLE WHOLESALE AGENTS:

BARCLAY & SONS, 95, Farringdon Street, London, E.C.

CERTIFICATE OF MERIT, LONDON, 1881.

W. H. LLOYD & CO.,

PATENTEES & MANUFACTURERS OF EVERY DESCRIPTION OF

BRONCHITIS KETTLES, FOOD WARMERS, NIGHT LAMPS & SPIRIT LAMPS

HIGH STREET, HARBORNE, BIRMINGHAM.

Wholesale Agents: S. Maw, Son, & Thompson, London.

AUSTIN'S CARBOLATED PREPARATIONS,

AS UNDER,

Will be found alike excellent in quality and economical in use; in fact, boons in every household. They comprise his

Patent Pocket Inhalers,

In various forms, at 3s., 4s. 6d., 7s. 6d., 10s. 6d., and in pure silver 21s. each, all of which contain a supply of his

Carbodate of Iodine,

For use in them—and obtains an ever increasing demand—for the removal of incipient Catarrh, and relief of all throat and lung affections who persistently used according to instructions. Physicians and Medical Men of the highest rank in their profession daily prescribe their use; also

Bottles, 1s. and 2s. each.

Tubulettes, 1s. each, or, per half-dozen, 5s.

Austin's Carbolated and Aromatized Dentifrice.

The use of this admirable and economic Tooth Powder will effectually arrest decay, sweeten the breath, and prevent Toothache. Price, 1s. per Box.

Austin's Carbolated and Aromatized Toilette Soap,

Inferior to none, but superior to most, at 1s. per Box, is relatively cheaper than any other. Its antiseptic and hygienic properties render it invaluable for preserving health and strength.

Austin's Carbolated and Aromatized Tonic Hair Wash

Fulfills every condition of restoring weak hair, and improving that best ornament of woman in an eminent degree. In Bottles at 1s. and 2s. each.

Austin's Fumigateur de Paris et de Bruxelles Sanatif, at 6d.

No sick chamber should be without this excellent contributor to restoring health and strength.

Austin's New Patent Carbolic Powder

Has already obtained an unprecedented demand on account of its absolute efficiency and immense economy in the purification of Drains, Cesspools, As pits, &c., &c. Retailed in Canisters at 6d. and 1s.; in Bags, 14 lbs., 1s. 6d.; 28 lbs., 2s. 6d.; $\frac{1}{2}$ -cwt., 4s. 6d.; per cwt., 8s.; and per ton, £7 10s.

Austin's Patent Pocket Inhalers,

And Carbodate of Iodine for use therewith, are in constantly increasing demand.

DR. HORACE DOBELL, in his recent work "On Loss of Weight, Blood Spitting, and Lung Disease," says (at page 124, 2nd edition), in reference to Antiseptic Inhalations—"ONE OF THE BEST MEANS OF USING THESE IS AUSTIN'S POCKET INHALER."

Prices—3s., 4s. 6d., 7s. 6d., 10s. 6d., and 21s. each.

Extra Bottles of Carbodate of Iodine, 1s. and 2s. each. Extra Tubulettes, 1s. each, or 5s. per half-dozen.

Warehouse and Offices:—**LIME KILN DOCK, HOTWELLS ROAD, BRISTOL.**

Wholesale Agents:—**S. MAW, SON & THOMPSON; LYNCH & CO., LONDON.**

AND MAY BE HAD OF ALL THE LEADING PATENT MEDICINE HOUSES.

BARCLAY & SONS,

95 FARRINGDON STREET, LONDON.



PATENT MEDICINES

AND

PROPRIETARY ARTICLES,

ENGLISH, FRENCH, AND AMERICAN, ETC.

LEEMING'S ESSENCE,

FOR LAMENESS IN HORSES.



GONE LAME.

CAUTION.

It having come to the knowledge of BARCLAY & SONS that persons, both at home and abroad, have been preparing and offering for sale an imitation of LEEMING'S ESSENCE, they beg to caution the trade that all such preparations are spurious, and that no person has any right of authority to prepare LEEMING'S ESSENCE except BARCLAY AND SONS, who have purchased the original recipe, and whose name appears on the label.



CURED BY LEEMING'S ESSENCE.

This Essence cures Strains of the Back Sinews, also Slips and Strains of the shoulders, Stifle, Hough, Whirlpool, Knee, Fetlock, and Coffin Joints. It makes the quickest and surest cures of any article yet known, and horses may be worked during the time of cure. **PRICE 2/6.**
LEEMING'S SHOULDER MIXTURE cures Horses' Backs and Shoulders when bruised or sore, and horses may be worked during the time of cure. **PRICE 1/.**

NEW ARTICLES.

ZYMOLYS

INTERNAL DISINFECTANT.

(REGISTERED TRADE MARK.)

THIS PREPARATION is a *sure and harmless* Disinfectant of the Blood and Tissues of the Body, rendering the human frame proof against *Zymotic*, or Infectious, Diseases—Measles, Scarlet Fever, Diphtheria, Sore Throat, Small-pox, Typhoid, Cholera, &c.

Cures for diseases are always ready to hand, but ZYMOLYS supplies a long-felt want, and is, what no other medicine can justly claim to be, a *Reliable Preventive of Infectious Diseases*.

By the use of ZYMOLYS, which gives immunity from the above diseases, Epidemics can be effectually stamped out, and prevented from spreading beyond the person first attacked.

RETAIL, 2s. 9d., 4s. 6d., 11s., 22s.

Ball's Bronchial Blessings

OR

THROAT LOZENGES.

These Lozenges, which flavour, are invaluable venting Hoarseness, of the throat, to which particularly those business demands a

9½d.

are of an agreeable for removing and pre-irritation or Tickle everyone is liable, whose profession or continual use of the voice.

Adults should take one Lozenge from time to time as occasion may require, allowing it to dissolve slowly in the mouth. Children will find half a Lozenge sufficient.

Ball's Bronchial Blessings can be obtained at any Chemist's.

WHOLESALE AGENTS.

BARCLAY & SONS, 95 FARRINGDON STREET, LONDON.

BARCLAY & SONS, 95 FARRINGDON STREET, LONDON.

Messrs. **SANGER & SONS** beg to inform the Trade that they can now supply FELLOW'S, DUSART'S, or CHURCHILL'S SYRUPS, *unstamped*, on the following conditions:—

First, that they are *only used in making up prescriptions*; if sold otherwise they must be stamped before sale. Secondly, every order for unstamped Syrups must be written on "to be used for dispensing purposes only."

Prices are as follows:

					Nett.
CHURCHILL'S SYRUP	...	4/-	37/-	per doz. subject.	31/7½
DUSART'S	"	...	2/6	28/-	22/2½
FELLOW'S	"	...	½ lb.	35/-	29/11
Do.	"	...	1 lb.	56/-	47/10½

SANGER & SONS'

PRICE CURRENT.

OF
ENGLISH AND FOREIGN
PATENT MEDICINES,
PERFUMERY,
LOZENGES.



OF
DRUGGISTS' SUNDRIES
MINERAL WATERS,
SPONGES, &C.

FREE ON RECEIPT OF BUSINESS CARD.

SPONGES OF SUPERIOR QUALITY—SANDLESS.

By the Quarter, Half, or Whole Case. In smaller quantities, Carded or otherwise.

Before **BUYING ELSEWHERE**, compare our **PRICES** with those of other **WHOLESALE HOUSES**

CARDED, HONEYCOMB, OR TURKEY SPONGES.

RETAIL.		PER DOZ., SUBJECT.		NETT.	RETAIL.		PER DOZ., SUBJECT.		NETT.
s. d.		£ s. d.		s. d.	s. d.		£ s. d.		s. d.
0 1	...	0 0 8	...	7	1 0	...	0 8 0	...	6 10
0 2	...	0 1 4	...	1 1½	1 6	...	0 12 0	...	10 3
0 4	...	0 2 8	...	2 3½	2 0	...	0 16 0	...	13 8½
0 6	...	0 4 0	...	3 5	2 6	...	1 0 0	...	17 1½
0 9	...	0 6 0	...	5 1½					

Purchasers of Druggists' Sundries, Smelling Bottles, Hair Brushes, Combs, Sponges, Thermometers, Filters, and Boxes of all descriptions should pay a visit to our Showroom before purchasing elsewhere, in order to compare our prices and quality against other houses.

AGENCIES OF ALL KINDS UNDERTAKEN ON FAVOURABLE TERMS.

J. SANGER & SONS, 489 Oxford Street, LONDON, W.

KEARSLEY'S WIDOW WELCH'S FEMALE PILLS.

These are universally acknowledged to be the Genuine, and Druggists may safely recommend them.

CAUTION!—The Proprietors of Kearsley's Original Widow Welch's Female Pills find it incumbent on them to caution the purchasers of the Pills against various imitations by parties who have no knowledge of their peculiar preparation, the Original Recipe having been sold to the G. Kearsley, of Fleet Street, whose Widow found it necessary to make an Affidavit, for the protection of her property, in the year 1798. The Genuine Recipe for **Widow Welch's Female Pills** has been prepared by them for **98 Years!** Chemists are particularly requested to remark that, as testimony of authenticity, each bill of directions contains an Affidavit, and bears the signature of "C. KEARSLEY," in writing, also engraved on a Government Stamp, and each box is wrapped in **WHITE** paper.

1,000 Handbills with Name, and 2 Tin Showcards, supplied with all Orders for One Dozen (13) Boxes
PRICE 27s. PER DOZEN, SUBJECT TO USUAL DISCOUNT.

Special Quotations to Shippers and for large quantities, on application to

J. SANGER & SONS, 489 OXFORD STREET, LONDON, W.

CHEVALIER'S PERLES

17 BARTHOLOMEW

CLOSE,

Trade Mark



Registered.

LONDON,

E.C.

MESSRS. F. CHEVALIER & CO. having obtained the services of Mr. E. CANT (formerly with Messrs. ALLEN & HANBURY'S) as Manager, and having made great improvements in the style of their goods, can confidently recommend them as the most reliable, and at the same time the most saleable Capsules in the market.

They are now packed in JAHNCKE'S PATENT METALLIC BOXES, in shapes well suited for the pocket. The boxes are neatly and plainly labelled. Chemists, in dispensing them, can readily remove the wrapper and directions and put on their own Dispensing Label.

These Perles are so packed in separate divisions that each one remains in its place to the last, thus avoiding the disagreeable rattling of an ordinary box of hard capsules. The Circulars enclosed in the boxes are divided into two sets. On one appears all remedies such as Castor Oil, Gregory's Powder, &c., and on the other such remedies as Copaiba and Sandal Oil; these are each kept strictly for use with their own class of goods, so that Chemists may be assured that in selling Castor Oil Perles they are not handing out a circular recommending Balsam of Copaiba.

The manufacturers absolutely guarantee the quantity and quality of all drugs and preparations used in filling their Perles. They are also prepared to fill their Perles with any drug or preparation to order, upon moderate terms, and in plain boxes if desired.

By an agreement made with Messrs. ALLEN & HANBURY'S, CHEVALIER & Co. can supply Chemists with Perles filled with the A. & H. Perfected Cod Liver Oil.

SCALE OF SIZES OF PERLES.

No. 1 contains 10 minims.	No. 4 contains 40 minims.
No. 2 " 20 "	No. 5 " 60 "
No. 3 " 30 "	No. 6 " 80 "

Directions for taking Chevalier's Soluble Perles.

The Perles may be readily swallowed by the aid of a little milk or other fluid. Being very flexible the largest may be swallowed without any difficulty.

This Price List is subject to a Discount of 33 $\frac{1}{3}$ per cent. to Chemists, and on additional 5 per cent. for cash in 7 days prompt.

NAME	NUMBER IN EACH BOX	QUANTITY IN EACH PERLE	RETAIL PRICE	COMPOSITION OF CONTENTS
APERIENT.....	12	60 grs.	s. d. 1 6	Confection of Senna.
APIOL.....	24	60 grs.	2 9	Apial 3 m. Olive Oil 7 m.
ASSAFETIDA.....	12	3 m.	1 6	
CAMPBOR MONOBROMIDE.....	12	5 grs.	1 0	Monobromide of Camphor and Sugar of Milk.
CASIOR OIL.....	12	3 grs.	1 0	Bleached East Indian Oil.
" ".....	12	30 m.	1 0	" " "
" ".....	24	30 m.	1 9	" " "
" ".....	12	60 m.	1 6	" " "
" ".....	24	60 m.	2 6	" " "
COD LIVER OIL.....	12	30 m.	1 0	Pale Norwegian Oil.
" ".....	24	30 m.	1 9	" " "
" ".....	12	60 m.	1 6	" " "
" ".....	24	60 m.	2 6	" " "
CARBOLIC ACID.....	12	1 gr.	1 0	Calvert's No. 1 with Glycerine 9 m.
CHARCOAL.....	24	10 grs.	1 6	
CREASOTE.....	12	1 gr.	1 0	From Beechwood, with Almond Oil, 9 m.
CHLOROFORM.....	12	3 m.	1 0	Duncan & Flockhart's, with Almond Oil.
GREGORY'S POWDER.....	12	30 grs.	1 6	B.P. Strength with heavy Magnesia.
" ".....	24	30 grs.	2 9	
LICORICE POWDER.....	12	30 grs.	1 6	Compound German Licorice Powder.
" ".....	24	30 grs.	2 9	
MALE FERN OIL.....	24	10 m.	2 6	Made by Allen & Hanbury's. "
" ".....	12	30 m.	3 0	
ETHER.....	24	20 m.	2 0	Duncan & Flockhart's.
PERMANGANATE OF POTASSIUM ..	24	1 gr.	2 0	With an Inoxidisable and inert base.
SANTONINE CO.....	24	3 grs.	2 0	Santonine with 30 m. Castor Oil, as recommended by Dr. Sidney Ringer.
TAR, NORWEGIAN.....	24	30 m.	2 6	Carefully selected.
TURPENTINE.....	24	10 m.	1 6	Rectified Spirit of Turpentine.
" ".....	24	30 m.	2 6	(Howard's Medicinal.)
COPAIBA.....	24	10 m.	1 6	We carefully test every sample of Copaiba bought by us before purchase.
" ".....	24	20 m.	2 6	
" ".....	24	30 m.	3 6	
COPAIBA AND CUBEBS.....	24	10 m.	2 0	We use a product of the complete exhaustion of Cubebs in all these Perles.
" ".....	24	20 m.	3 0	
" ".....	24	30 m.	4 6	
COPAIBA, CUBEBS, AND BUCHU.....	24	30 m.	4 6	
" ".....	24	10 m.	2 6	
" ".....	24	20 m.	3 6	Best English distilled Oil.
" ".....	24	30 m.	4 6	
GURGUN BALSAM.....	24	30 m.	2 6	
" ".....	12	60 m.	2 6	
" ".....	24	60 m.	4 6	
SANDAL OIL.....	24	10 m.	3 6	
" ".....	24	20 m.	6 0	

To this List will be added such new remedies as may be in demand. We shall be glad to carry out the suggestions of Medical Men.



Wholesale and Export Druggists' Sundriesmen, Surgical
Instrument Makers, Perfumers, &c.

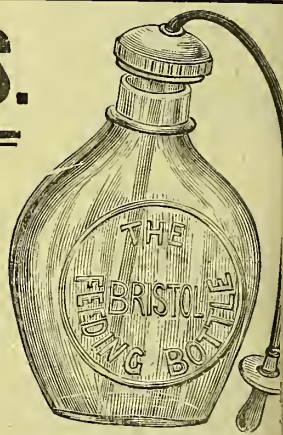


THE "MATER."—Screw Glass Stopper.

FEEDING BOTTLES.

OUR NEW LIST FOR 1885
NOW READY,
POST FREE ON APPLICATION.

CURTAIN ROAD, LONDON, E.C.



"BRISTOL."—Earthenware Cap

										White Fittings.	Black Fittings.
The	MATER."	green glass, bent neck, wood top corks, in 1 doz. boxes	..	..	..	..	..	..	..	Per doz.	Per doz.
"	"	"	..	..	..	..	..	..	..	3/6	4/-
"	"	"	..	..	..	..	..	..	..	4/3	4/9
"	white glass	"	..	..	..	..	..	..	..	4/-	4/6
"	"	"	..	..	..	..	..	..	..	7/6	8/-
"	"	"	..	..	..	..	..	..	..	7/6	8/-
"	"	"	..	..	..	..	..	..	..	10/-	11/-
"	"	"	..	..	..	..	..	..	..	8/-	9/-
"	"	"	..	..	..	..	..	..	..	10/-	11/-
"	"	"	..	..	..	..	..	..	..	10/-	11/-
"	"	"	..	..	..	..	..	..	..	3/3	3/9
The	"IMPERIAL,"	suitable for export, green glass, straight, wood top corks, in 1 doz. boxes	..	..	..	..	..	..	..	4/-	4/9
"	"	"	..	..	..	..	..	..	..	4/3	4/9
"	"	"	..	..	..	..	..	..	..	7/-	7/6
"	"	"	..	..	..	..	..	..	..	7/6	8/-
The	"BRISTOL,"	green glass, bent neck, wood top corks, in 1 doz. boxes	..	..	..	..	..	..	..	3/-	3/6
"	white	"	..	..	..	..	..	..	..	—	4/6
"	"	"		

The last is one of the best lines ever introduced; is put up in handsome box, with neat label.

Subject to Discount as per List.

Subject to Discount as per List

ROZALIMUM

(REGISTERED)

POWDER OR PASTE

IS THE BEST DENTIFRICE.

It is scientifically prepared by a Dental Surgeon, of large practice and great experience, and is intended to supply a long felt want, viz., a Preparation that will thoroughly cleanse the Teeth, and at the same time help to preserve them. As a stimulant to the Gums, and a preservative of the Teeth, Rozalimum is not to be surpassed; it gives to the Teeth a pearly whiteness, to the Gums a healthy rosy colour, whilst it prevents decay by neutralizing the acids which accumulate between the Teeth, and imparts to the Breath a most delicious fragrance.

In Boxes, Pots, and Bottles, 1s. and 2s. 6d.

May be obtained from the Wholesale Houses, or direct from the Proprietor—

**J. W. MARTIN, Dental Surgeon,
P E N G E .**



FERGUSON'S PATENT TOOTH POWDER OR DENTIFRICE SPOON,

For Supplying Tooth Powder or other Dentifrice to the Brush.

The spoon is fitted inside a suitable bottle, which forms a receptacle for the dentifrice, the spoon itself acting as an air-tight stopper to the bottle.

8s. per dozen; retail, 1s. each.

The bottles are sold empty, consequently they increase the sale of tooth powder from bulk. Wholesale from

J. A. FERGUSON, 53 GT. GEORGE STREET, LEEDS,

And the following London Agents:—Barclay & Sons; Bourne & Taylor; Edwards & Sons; Hovenden & Sons; Lynch & Co.; Maw, Son & Thompson; Newbery & Son; Thompson, Millard & Co.; and all the principal Provincial Houses.

Robare's Aureoline,

OR

GOLDEN HAIR WASH.

The attention of the Trade is respectfully called to the above Article, now having a large sale, and giving an excellent profit to the Retailer.

5/6 size, 36/- per doz. 10/6 size, 72/- per doz.

SOLE WHOLESALE AGENTS—

R. HOVENDEN & SONS, LONDON.

Dr. C. R. Coffin's AMERICAN DENTIFRICE.

Prepared only by WILLIAM DARLING, Chemist, Manchester. May be had from S. Maw, Son, & Thompson; Barclay & Sons; F. Newbery & Sons; Sanger & Sons; and any Wholesale House in London. Price 2s. per Box and Family Jars 10s. each.

TRADE MARK.

"SALUD"

A Specific in Cases of GONORRHOEA and GLEET, as well as in Chronic or other Inflammatory Conditions of the Vesical Mucous Membrane, attended with purulent or ropy urine. To be obtained of

THE SALUD CO.. LIM., 3 SAVAGE GARDENS, TOWER, LONDON, E.C.

Title Secured. Price 2/6. Cases of Six, 14/-



TRADE MARK 27668.

INVENTED BY A TALENTED PHYSICIAN.

Recommended by eminent Surgeon-Dentists. Patronised by the "Mond's élegs" as the best and most agreeable liquid Dentifrice yet introduced.

PROPRIETORS—

BARTON BROTHERS, BRIGHTON.

Also Sole Proprietors of the Original

"BRIGHTON GLYCERINE CREAM."

WHOLESALE FROM

Messrs. Barclay, E. Cleaver, Edwards, Newbery, Sanger, Sutton, &c.

BETHSHAN. The certain cure for the TOOTHACHE.

BETHSHAN. If used as a Tooth-powder will prevent

BETHSHAN. Neuralgia and absolutely arrest all decay

BETHSHAN. Of the Teeth, also preserve them healthy

BETHSHAN. and sound to extreme old age.

BETHSHAN. Everyone should try it, especially Smokers.

Can be obtained of all Chemists, or will be sent free by post on receipt of 15 stamps, direct from the Proprietors, **HARDEN & CO.,** Shirley, Southampton.

AGENTS WANTED.

BEAUTY—WOMAN'S GREATEST CHARM.

NORINA'S EMOLLIENT,

Prepared from the Recipe of the late Dr. ANDERSON, produces a lovely complexion. It is elegantly perfumed, without sediment, and perfectly harmless. One of the best preparations before the public. Largely advertised and in great request. 4/6 each.

Agents—Messrs. NEWBERRY, King Edward Street, Newgate Street, London.

ESTABLISHED 60 YEARS.

Exhibitions—1851, 1862; Paris, 1867, 1878.

LEATHART'S EXHIBITION HAIR DYES

To Retail at 1/-, 2/6, 3/6 and 5/6. See Price List.

To Dye instantaneous, Black, Dark Brown, Ordinary Brown, Light Brown, and Special Brown.

LEATHART'S COLORIFIC.

A Stain in one preparation: perfect, light, and ordinary browns.

To Retail at 3/6; 24/- per dozen.

EXHIBITION DYE IN BULK.

2/6, 6/-, 10/-, 41. Five Colours.

ONE PREPARATION IN BULK.

MALACCA JUICE.

Winchester (4 pints), 14/. Sample Bottle, carriage free, 1/6.

AN ORIGINAL PREPARATION. QUICK IN ACTION.

179 Ladbroke Grove Road, Notting Hill, LONDON, W.

N.B.—Price List will be forwarded.

OSCAR SUTTON & CO., PRESTON, LANCASHIRE.

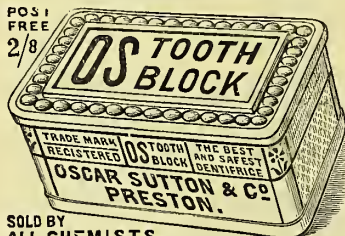
CAUTION AGAINST IMPOSITION**O.S. TOOTH BLOCK.**

Be particular to observe that the Registered Trade Mark and the name "OSCAR SUTTON & CO." are stamped on all that are genuine, as worthless imitations are in the market.

REGISTERED



TRADE MARK

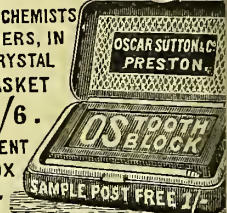
POST
FREE
2/8SOLD BY
ALL CHEMISTS.**BEST & SAFEST DENTIFRICE**

SOLD BY ALL CHEMISTS
AND PERFUMERS, IN
ELEGANT CRYSTAL
TOILET CASKET

PRICE 2/6.

ALSO IN PATENT
METALLIC BOX

PRICE 1/-



SEE TESTIMONIALS FROM

Dr. J. J. Pope, M.R.C.S., L.S.A., Professor of Hygiene, Birkbeck Institute,
Lecturer on the Special Staff of the National Health Society, London (author
of "Number One, and How to Take Care of Him").
Wholesale of Messrs. Evans, Barclay, Tivenden, Maw, Newbery, Thompson, Edwards, Sanger, Butler & Crispe, W. Sutton & Co., Lynch, &c., London, and of all the leading
Dental Houses; also of Messrs. Felton, Gilmwade & Co., Locke, Tompsett & Co., Melbourne, and the principal Colonial Agencies, &c. Write to above address for particulars.

The Rev. Edward Muckleston, M.A., Haseley Rectory, Warwick.
Thomas Hendrick, Esq., Jamaica, Registrar of the Supreme Court of Judicature.
Fred. G. Winter, Esq., St. John's Hill House, London, S.W.; and hundreds of others.
Sanger, Butler & Crispe, W. Sutton & Co., Lynch, &c., London, and of all the leading
Dental Houses; also of Messrs. Felton, Gilmwade & Co., Locke, Tompsett & Co., Melbourne, and the principal Colonial Agencies, &c. Write to above address for particulars.

MECHANICAL DENTISTRY.

The most PERFECT FIT and HIGHEST FINISH, with Punctuality, may
be relied on in all Work entrusted to

Mr. MATTHEWS,

50 BRUNSWICK ST., MANCHESTER.

Who has had 35 Years' Experience in every branch of Dental Work-
manship. The most Moderate Scale of Charges possible to ensure Good
Work and Best Materials. Price List on application. A vacancy for a pupil.

TO DENTISTS AND CHEMISTS.—Every
description of Artificial Teeth made at greatly reduced
charges. Best work and best materials only.

An Upper or Lower Set, inclusive of Teeth Rubber, &c., £1 10.
Ditto, ditto, on Platina, £2 2s.

Send for Price List.

Twenty years' experience in mechanical work.

LESSONS GIVEN IN MECHANICAL DENTISTRY
F. BUCK, 6 Hanover Place, Upper Baker Street, London, N.

IMMENSE SALE.

SOLD EVERYWHERE.

WOODS' ARECA NUT TOOTH PASTE,

For Removing Tartar, Whitening the Teeth, and Sweetening the Breath.

PRICE, 6d. and 1s. per Pot.

MAY BE HAD OF WHOLESALE HOUSES THROUGHOUT THE GLOBE.

WHITE AND SOUND TEETH.**JEWSBURY AND BROWN'S
ORIENTAL TOOTH PASTE.**

This old-established and increasingly favourite Dentifrice has been Fifty Years before the Public.
It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

JEWSBURY AND BROWN
CHEMISTS, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed.
Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered.

Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.



The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card, and directions for enclosure.

ROWLAND'S TOILET ARTICLES,

20 Hatton Garden, London,

Have been known for the last 84 years all over the world, and being well advertised, and always finding a ready sale, are well worthy the attention of Chemists, Druggists, and Storekeepers. They will keep good for years, no matter how hot or cold the climate may be.

ROWLAND'S MACASSAR OIL

Pre-erces, strengthens, and beautifies the hair; it contains no lead or mineral ingredients, and can now be also had in a golden colour, which is especially suited for fair or golden-haired children and persons. Four sizes.

ROWLAND'S KALYDOR

Is a most cooling, healing, and refreshing wash for the face, hands and arms, and is perfectly free from any mineral or metallic admixtures; it disperses freckles, tan, prickly-heat, redness, pimples, &c.

ROWLAND'S ODONTO,

Or PEARL DENTIFRICE, whitens the Teeth, prevents and arrests Decay, strengthens the gums, and gives a pleasing fragrance to the breath.

ROWLAND'S EUKONIA

Is a beautifully pure, delicate, and fragrant toilet powder, and has lately been much improved. Each box has inside the lid a certificate of purity from Dr. Redwood, Ph.D.; F.C.S., &c. Sold in three tints—white, rose, and cream.

ROWLAND'S ESSENCE OF TYRE

Produces immediately a perfect change in red or grey air, whiskers and eyebrows, to a glossy and permanent brown or black, which colour neither washing nor perspiration will remove.

IMPORTANT CAUTION.—To protect the public from fraud, ALL ROWLAND'S ARTICLES have on the WRAPPER their SIGNATURE, "A. ROWLAND & SONS," in red ink.

COUNTER BILLS, SHOW CARDS, &c., CAN ALWAYS BE HAD ON APPLICATION.

A PERFECT BOON TO MOTHERS!

ROGERS' "NURSERY" HAIR LOTION.

One application is guaranteed to destroy all Nits and Parasites in Children's Heads, and immediately allay the Itching and Irritation.

It is now used in Thousands of Families with the greatest success, and all who have tried it are delighted with the effect, and declare it to be worth A GUINEA A BOTTLE.

PREPARED ONLY BY

WILLIAM ROGERS,
CHEMIST,

BEN JONSON ROAD STEPNEY, E.

Sold in large Bottles, price ONE SHILLING. Sample Bottle, 7d.

SOLD BY ALL CHEMISTS AND PERFUMERS.

Observe! Genuine only in Yellow Wrapper, White Label. WHOLESALE AGENTS.—Barclay & Son; Edwards & Son; Maw, Son & Thompson; Millard & Son; Sanger & Sons; Thompson & Co., Limited; Butler & Crispin; Howenden & Sons; Newbery & Sons

JAMES'S TOILET SPECIALITIES.

JAMES'S HERBAL OINTMENT, for the Cure of Pimples, Black Specks, Blotches, &c., and taking away Tan Freckles, Sunburn, &c. Sold by all Chemists, 1/1½ and 2/9 per box.

JAMES'S DEPILATORY,

For the instant removal of Superfluous Hair. Sold by all Chemists. 1/- and 2/- per box.

JAMES'S HERBAL POMADE,

For Promoting the Growth of the Hair, Whiskers, Beard, Moustachios, Eyebrows, and Eyelashes. Sold by all Chemists, 1/- and 2/- per box.

These Articles are well worthy the attention of Chemists, Wholesale Houses, and others, as they are being well advertised.

JAMES & CO., 226 Caledonian Rd., LONDON, N.

STEWART'S

PARISIAN HAIR WASH FOR CHILDREN.

THE CHILDREN'S COMFORT



THE MOTHERS' FRIEND.

TRADE MARK.

Is the BEST, CHEAPEST, and most EFFECTIVE for destroying NITS and PARASITES, allaying IRRITATION, and removing all IMPURITIES from CHILDREN'S HEADS. Pleasant to use and PERFECTLY HARMLESS.

Sold in Bottles 6d. and 1s. each. Advantages.—Its large profits to the Trade, and certain success wherever introduced.

PREPARED ONLY BY

W. H. STEWART,

ENGLISH AND FOREIGN CHEMIST,

MARKET PLACE, SHIRLAND ROAD, ST. PETER'S PARK, W.

ESTES' AMERICAN DRUGGISTS' & CHEMISTS'

TURNED WOODEN BOXES,

PILL, POWDER, & SALVE BOXES.

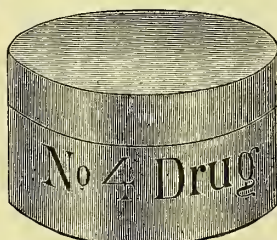
FINELY-FINISHED FACE AND TOOTH POWDER BOXES.

BOXES FOR SENDING VIALS THROUGH THE MAIL.



Boxes equal to English Manufacture, at much lower prices.

USE WOODEN BOXES IN PLACE OF PAPER OR TIN.

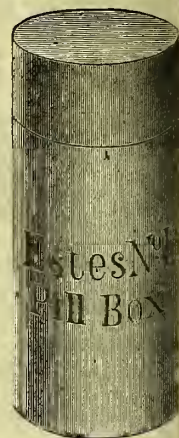


BOXES OF EVERY KIND AND
FINISH MADE TO ORDER.

KILNER BROS.,
3 Great Northern Goods Station,
King's Cross, London.

AYR'ON & SAUNDERS,
149 Duke Street, Liverpool.

ADDRESS OUR AGENTS, OR
E. B. ESTES & SONS
NEW YORK.



THE PATENT SAFETY SAMPLE & PARCELS POST BOX COMPANY, LIMITED.

Works and Offices—BALDWIN'S GARDENS, GRAY'S INN ROAD, E.C.



Stamped out of One Piece of Metal, thus avoiding Soldered Joints.
NO INCREASE OF COST.

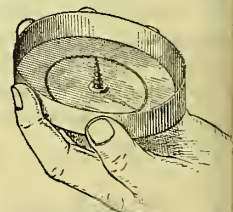
These Improved Tin Boxes are specially adapted for Pill, Lozenge Boxes, &c., and for the dispatch of Samples generally. They can be readily opened and securely fastened without the aid of any agent.

Can be had in all sizes.

Full particulars and samples post free on application.

Depot at Messrs. H. POTTS & CO., Sugarloaf Court,
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SHOWING METHOD OF SECURING THE LIDS.



BOX CLOSED READY FOR POSTING.



Boxes ready made up, or the Patent Tops only (ready for making up), are supplied.

SELF-OPENING TIN BOX COMPANY

(GRIFFIN'S PATENT).

19 Kirby St., Hatton Garden, London, E.C.

THE NEW TIN BOXES

for all kinds of Hermetically Sealed Preserved Foods, DRUGS and CHEMICALS.

THE NEW TIN BOXES

are as cheap as the ordinary Boxes, require no soldering up, and can be opened with a pen-knife.

THE NEW TIN BOXES

are best adopted by the largest Food-preserving Houses and CHEMISTS, to whom references can be given.

THE NEW TIN BOXES

are also perfect for Coffee Canisters, Biscuit Boxes, Confectionery, Paints, C., Varnishes, Soaps, &c.

THE NEW TIN BOXES

are described by the Times, Standard, Chronicle, Illustrated News, Engineer, Grocer, Oil & Colourman, and Press generally, as the "neatest and most elegant invention ever made."



Lantern and Dissolving-View Apparatus

LIME AND OIL LIGHT, Gas Bags, Retorts, Screens, &c., &c. 10,000 Lantern Photographs, plain and coloured, with descriptive readings. Chemists and Druggists dealing in scientific apparatus are requested to send for New Illustrated Trade List, 1884 and 1885, to the Manufacturer A. PUMPHREY, Stanhope Street, Birmingham.



Circular Violet-Powder Box.



Menthol-Cone Box.



Marking-Ink Box.



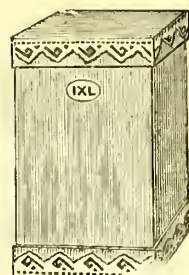
Homoeopathic Bottle Case.



Camphor Roll Box.



Boxwood Camphor Roll.



Pedestal Violet-Powder Box.

TO CHEMISTS AND OTHERS USING BOXES IN ANY QUANTITIES.

AYRTON & SAUNDERS

Manufacturers by Steam Power

OF EVERY DESCRIPTION OF

ROUND, SQUARE, AND OVAL

BOXES,

IN WILLOW, PAPER, AND CARDBOARD.

IMPORTERS OF

FRENCH, GERMAN & AMERICAN BOXES.

A LARGE STOCK ALWAYS ON HAND.

Samples and Estimates on Application.

If you are introducing any Novelty, or if you have any Box or Boxes of which you use any considerable number,

WRITE DIRECT TO THE MAKERS

Enclosing your patterns and stating the quantities you require, estimates will be at once sent you free of charge.

A GREAT SAVING WILL BE EFFECTED.

WAREHOUSE:

149 & 153

DUKE STREET;

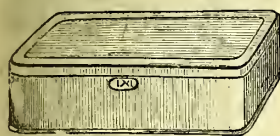


FACTORY:

62

PARR STREET,

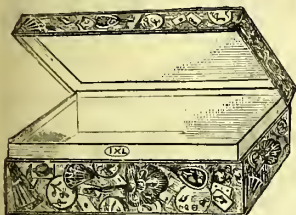
LIVERPOOL.



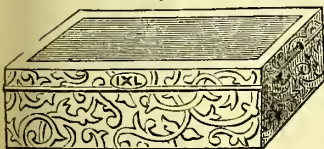
Panelled Jujube Tin.



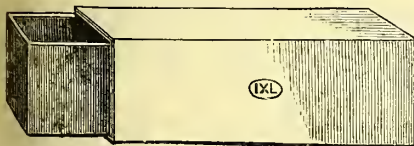
Decorated Jujube Tin.



Oriental Lozenge Box.



Fancy Drop-Lid Seidlitz Box.



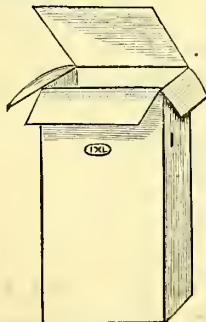
Plain Powder Slide.



Cosmetic Case.



Insect-Powder Tin.



Arrowroot Case.



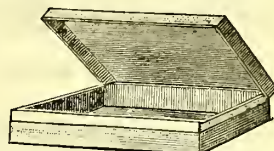
New Style Insect-Powder Box.



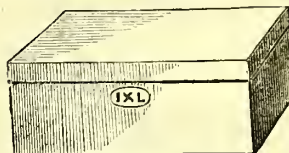
The IXL Insect-Powder Box.



Round Fullers'-Earth Box.



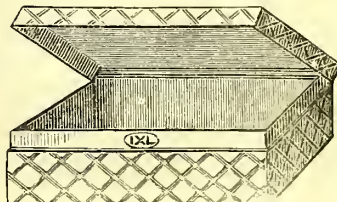
Potash-Pellet Box.



Plain Jujube Tin.



Oval Cardboard Lozenge Box.



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Bronze Powder Slide, White Edges.

PATENT FOLDING PAPER BOXES

FOR BOTTLES OF ALL SIZES AND KINDS, INCLUDING
PHILADELPHIA OVAL AND FRENCH SQUARE,
FOR PRESCRIPTIONS.

SPECIAL SIZES MADE TO ORDER FOR
PROPRIETARY GOODS, BAKING AND CONDITION POWDERS, ETC.

All these boxes **Fold Flat**, thus economising in freight and storage, enabling us to ship them to any country. THEY CAN BE PRINTED WITH ANY CARD OR FORMULA IN ANY LANGUAGE, thus doing away with label-pasting or wrapper-folding.

ENVELOPES FOR COURT PLASTER MADE IN COLOURED PAPERS.

Samples and Estimates Furnished by

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ARUNDEL & MARSHALL,

PENN STREET WORKS, HOXTON, LONDON, N.

(Telephone Exchange No. 220; also Telephone Office, No. 27 Falcon Square),

MANUFACTURERS OF PLAIN AND FANCY BOXES OF ALL DESCRIPTIONS.

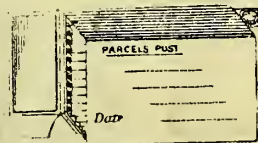
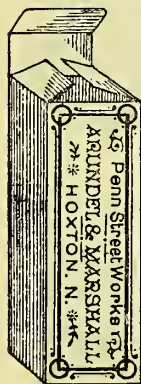
FOLDING CARDBOARD BOXES OF ALL SIZES AND VARIOUS FASTENINGS

SPECIALLY SUITABLE FOR

PACKING BOTTLES, MEDICINES, SCENTS, LIQUEURS, WINES, SPIRITS, CONFECTIONERY, FANCY
BISCUITS, TEA, FLOUR, TOBACCO, DRY SALTS,
PROPRIETARY ARTICLES, &c.

Regular and various sizes of 2, 3, 4, 6, 8, 12, 16-oz., 1-lb., 2-lb., 1-lb., &c., in stock. As these cases are packed and stored **FLAT**, and so occupy little space, they are largely used by Shippers. **ECONOMY OF SPACE IN STORING.**

**LINEN COVERED FOLDING BOXES,
EXTRA STRONG.**



PARCELS POST BOXES.

Perfectly secure, Bottle being protected by inner wrapping of Patent Corrugated Card Board. Regular Sizes in stock; also with Divisions. Any Sizes or Shapes made.

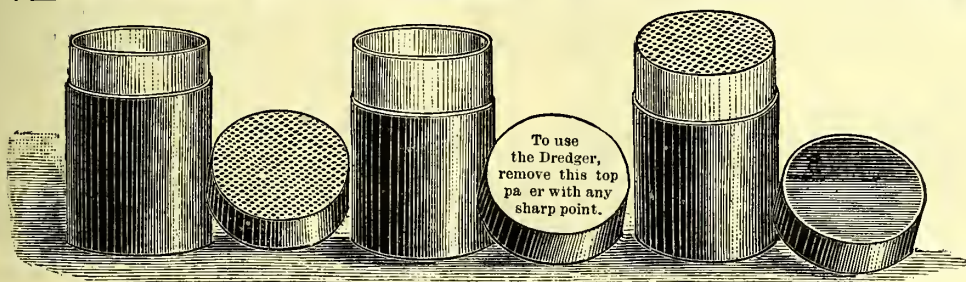
SAMPLES AND ESTIMATES FURNISHED. SEE PRICE LISTS. TO BE HAD OF ALL DEALERS.

ROBINSON & SONS,

MANUFACTURERS OF CARDBOARD

INSECT POWDER BOXES.

COVERED IN ANY STYLE TO SUIT PURCHASERS.



A

B

C

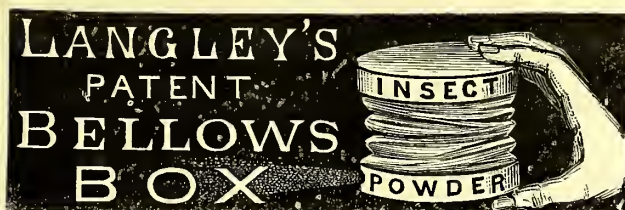
A PERFORATED ZINC ON TOP OF LID.

B " " " " but covered with a printed card, which can be removed to dredge the Powder.

C " " " " INSIDE THE BOX, the shoulder being left loose for filling.

Also Sole Makers of

For expelling all
kinds of Powders,
Insect Powder,
Violet Powder,
Fullers' Earth,
French Chalk,
&c.



For expelling all
kinds of Powders,
Insect Powder,
Violet Powder,
Fullers' Earth,
French Chalk,
&c.

Manufacturers of

ROUND & SQUARE CARDBOARD BOXES

USED BY

Druggists, Drysalters, Homœopathists, and Confectioners.

ESTABLISHED 1839.

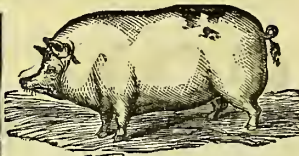
Honourable Mention for Cardboard Boxes, International Exhibition, 1862.

WHEATBRIDGE MILL & HOLMBROOK WORKS, CHESTERFIELD,

AND

55 Fann Street, Aldersgate Street, London.

SPONG'S (Registered)
BEDFORDSHIRE
PIG POWDERS



**A CERTAIN CURE FOR
ALL PIG DISEASES,**

And given occasionally causes the
Pig to lay on flesh rapidly.

The Proprietors will be glad to assist Chemists in introducing the

BEDFORDSHIRE PIG POWDERS

By supplying Show Cards, Posters, and Handbills, with Name and Address, FREE by Parcel Post.

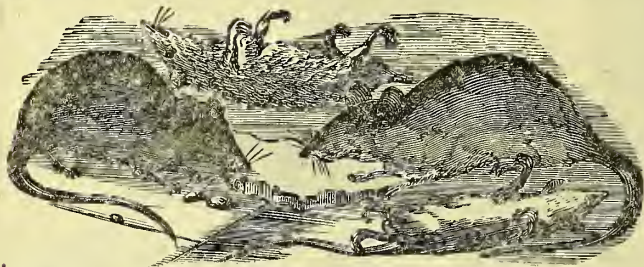
The Unsolicited Testimonials constantly coming to hand from large PIG KEEPERS, BREEDERS, and EXHIBITORS, and the rapidly-increasing sale is the greatest proof of their value.

LONDON WHOLESALE AGENTS:—BARCLAY & SONS, SANGER & SON, EDWARDS & SON, SUTTON & CO., HOVENDEN & SONS, THOMPSON & CO., &c., &c.

PROPRIETORS—

SPONG & SON, AGRICULTURAL CHEMISTS, BIGGLESWADE, BEDS

BATTLE'S VERMIN KILLER. { Mice eat it readily, and Die on the spot.



Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby.—"A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy to-day he called in to say that he had found fifteen dead mice, and had used part of a packet."—From Mr. EDWARD STURDY, Flemington Mills. "I duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets."—Leeds, November 1, 1884. "I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS."—THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England

No Chemist or Storekeeper should be without a supply.

**HAND BILLS
AND
SHOW CARDS
FREE.**

Any Chemist, on application to
THOMAS KEATING, Chemist, St. Paul's Churchyard, London, can have these sent for enclosure to his London Wholesale House. The Bills are plain on one side, printed on four different colours, large enough to wrap a 6 oz. bottle. Two or three weeks' notice is required. Please send two labels that printer may add name and address correctly.

SANFORD'S RAT POISON

Is admitted by Hundreds that have used it to be the best Preparation known. 120 rats were found dead by one dressing. Has never been known to fail.

SANFORD & SON, having had 23 Years of Practical Experience in Poisoning Rats, Mice, &c., can with confidence recommend it as the Best Preparation known.

Read the following Testimonials, which have been selected from many that have been received:—

SANFORD'S RAT POISON.—It is undoubtedly the best preparation known. It does not require spreading on bread, as is usual. Rats eat it readily, and are found dead.

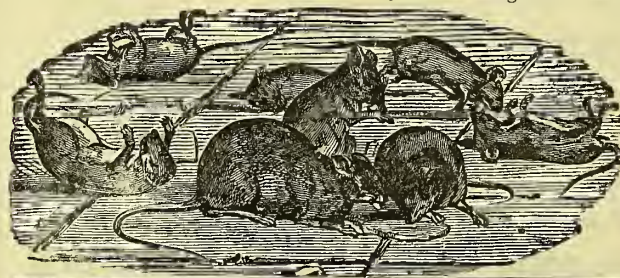
Mr. SANFORD, Sir.—Your Rat Poison answers well. I found 54 rats killed by it.—F. FOWLER, Farmer, Henlow.

Mr. SANFORD, Sir.—I find your Rat Poison very effective: it killed 130 in my wheat stacks.—J. U. PARKER, Farmer, Caxton.

Mr. SANFORD, Sir.—Your Rat Poison is the best I ever used: it answers well.—J. LONG, Farmer, Henlow.

Sold at 6d., 1s., 2s., and 3s. per Box, with Directions for use.

A TRIAL SOLICITED.



SANFORD'S MICE POISON, For Houses, Buildings, Corn Stacks, &c. Cannot be excelled. Packets, 3d., 6d., and 1s. each, of Chemists or of the Proprietors.

SANFORD & SON, SANDY, BEDS.
LIBERAL TERMS TO CHEMISTS.

Wholesale of BARCLAY & SON, SANGER & SON, NEWBURY & SONS, and others.

SUMMER IS COMING.

BE READY

WITH

INSECT POWDER.

FINEST INSECT POWDER,

7 lbs., 1/6 per lb.; 56 lbs., 1/5 per lb.; 112 lbs., 1/4 per lb.;
5 cwt., 1/3 per lb.

WRITE FOR SAMPLE.

DANIEL JUDSON & SON, 77 SOUTHWARK ST., LONDON, S.E.

“KROKUM” !!!

THE GREAT INSECT DESTROYER.

“KROKUM” is perfectly harmless to Human Beings and Animals.

“KROKUM” is put up in handsome Pepper Castors, which when empty form an ornament for any table, and are alone well worth the money.

WARRANTED PERFECTLY PURE.

- 1s.—In handsome Pepper Castors, Show Card with each dozen, **8s.** per dozen, boxed.
- 6d.—In handsome Pepper Castors, Show Card with each dozen, **4s.** per dozen, boxed.
- 3d.—In Bottles with perforated cap, Show Card with each dozen, **2s.** per dozen.
- 1d.—In Bottles with perforated cap, Show Card with each box, **8s.** per gross. $\frac{1}{2}$ gross boxes.

THESE ARE GENERALLY ACKNOWLEDGED TO BE THE LARGEST AND BEST “GOT UP”
INSECT POWDERS IN THE MARKET.

LIBERAL DISCOUNT TO WHOLESALE AND RETAIL.

DANIEL JUDSON & SON, 77 Southwark St., LONDON, S.E.

In consequence of the great reduction on all Patent Medicines, the Proprietor has determined to reduce the Wholesale Prices of following Articles, viz.,

	Per doz.	Retail.
TAYLOR'S Condition Balls	24/-	3/-
Ditto	12/6	1/9
TAYLOR'S Condition Powders	18/-	2/6



TAYLOR'S CLEANSING DRINKS, NO RETAIL PRICE.

	Per doz.	Retail.
TAYLOR'S Cough Powders	18/-	2/6
TAYLOR'S Cleansing Drinks	5/-	(No retail price)
TAYLOR'S Foot Rot Mixture	7/-	1/-
Ditto	14/-	2/-

SUBJECT TO THE USUAL DISCOUNT.

T. TAYLOR would call especial attention of the Trade to his "Cleansing Drinks," 6s. per dozen. They are put up in neat PACKETS, and so the Chemist immense trouble. If preferred, the Drinks can be had without the word "Taylor's"—only "Cleansing Drinks"—thereby enabling the Chemist to affix his own slip label; but to secure this, when ordering ask for those with the pink label. NO RETAIL PRICE AFFIXED.

PREPARED BY THOMAS TAYLOR, M.R.C.V.S., DERBY.
And to be had from all the Wholesale Houses, or direct in gross boxes at £3 per gross, less 20 per cent. cash (carriage paid).

HORSES.—LIEUT. JAMES' BLISTER

(Manufactured by R. J. JAMES, the Grandson of the Inventor).

THIS CELEBRATED BLISTER IS NOW OFFERED TO THE TRADE AT THE FOLLOWING REDUCED PRICE—	
1 oz. pots from	14/- per doz. to
2 " " "	12/6 per doz.
4 " " "	1 lb. pots from
	£4 4 0 per doz. to
	7 16 0 " "

Observe the Trade Mark.—"A Horse's Head on the top of each Pot, and the signature, R. J. James."

Wholesale Agents, BUTLER & CRISPE, 4 Cheapside; NEWBURY, 37 Newgate Street; MAW, SON & THOMPSON, 11 Aldersgate Street; HAYES DO., Dublin; GOULDING, Cork; FOGGITT, Thirsk; and SANG & BARKER, Edinburgh. Agents for the Colonies required. Apply, with reference, to R. J. JAMES, South Retford, Notts.

JAMES v. JAMES.—LORD ROMILLY, the Master of the Halls, on February 23, 1872, declared "that I had an equal right with other members of the Inventor's family possessing the receipt to make and sell this Blister."—R. J. JAMES.

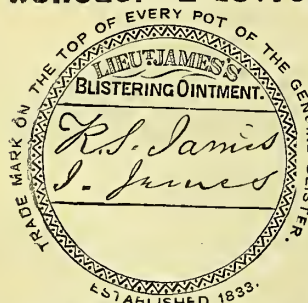
ESTABLISHED 1833.

HORSES.—LIEUT. JAMES'S BLISTER.

CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raines & Co., Edinburgh, Liverpool, and York, are now and have been Agents 49 years.



AGENTS.—BUTLER & CO., 10 Bow Churchyard; W. Edwards & Son, 187 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burdighes & Co., 26 Coleman Street; Lynch & Co., 171A Aldersgate Street; Southall Brothers and Barclays, Birmingham; K. Hovenden & Sons, 93 & 95 City Road, Finsbury; Janger & Son, 150 Oxford Street; Millard & Sons, 40 Charterhouse Square; Jorry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries Company, Virginia Street, Glasgow; Boileau & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith Londonderry; M. C. Delaere, Pharmacie Anglaise, Bruxelles. And by all Chemists, in Pots, 1/6, 2/9, 5/1, 3/1, and 16/.

COLONIAL AGENTS.—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; AUCKLAND and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Whitehead & Co.

W. H. JAMES, Sole Manufacturer, STAMFORD, FARINODON, BERKS.
Advertised in "Bell's Life" 49 years. Beware of Spurious imitations.

22 PRIZE MEDALS AND CERTIFICATES.

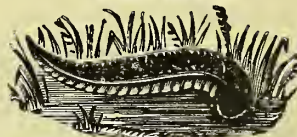
JEYES' "PERFECT PURIFIER."

THE BEST AND CHEAPEST DISINFECTANT, DEODORISER, AND CLEANSER.

Sanctioned by H.M.'s Board of Trade, and H.M.'s Government of India.—Non-Poisonous and Non-Corrosive.

JEYES' SANITARY COMPOUNDS CO., LIMITED, 43 CANNON STREET, LONDON.

HAMBRO SPECIALLY.



TRADE MARK

REGISTERED.

All Orders by Post receive immediate attention.

LEECHES

Warranted Healthy, Wholesale and for Exportation, Direct from Marshes.

FITCH & NOTTINGHAM, Leech Breeders.

MARSEILLES, & 55 PRINCE STREET, ROAD, LONDON, N

ESTABLISHED 1851.

BIRKBECK BANK.—Southampton Buildings, Chancery Lane.

Current Accounts opened according to the usual practice of other Banks, and interest allowed on the minimum monthly balances not drawn below £50. No commission charged for keeping Accounts, excepting under exceptional circumstances. The Bank also receives money on Deposit at Three per cent. interest, repayable on demand. The Bank undertakes for its Customers, free of charge, the custody of Deeds, Wills, and other Securities and Valuables; the collection of Bills of Exchange, Dividends, and Coupons; and the purchase and sale of Stocks, Shares, and Annuities. Letters of Credit and Circular Notes issued. A Pamphlet with full particulars, on application. FRANCIS RAVESCROFT, Manager.

THE BIRKBECK BUILDING SOCIETY'S ANNUAL RECEIPTS EXCEED FIVE MILLIONS

HOW TO PURCHASE A HOUSE FOR TWO GUINEAS PER MONTH, with immediate Possession and no Rent today. Apply at the Office of the BIRKBECK BUILDING SOCIETY.

HOW TO PURCHASE A PLOT OF LAND FOR FIVE SHILLINGS PER MONTH, with immediate possession, either for Building or Gardening purposes. Apply at the Office of the BIRKBECK FREEHOLD LAND SOCIETY. A Pamphlet, with full particulars, on application. FRANCIS RAVESCROFT, Manager.

Southampton Buildings, Chancery Lane.

THE CELEBRATED DANGERFIELD'S IGNITING MATCH CASE

PRONOUNCED PERFECTION.



It has no equal in Mechanical Construction, Workmanship, Quality of Material, Neatness, Compactness, Convenience, and Low Price. Secured by United States and Foreign Patents. Price the world over.—XX Twentieth Slide, 1/ each per doz. 7/4; Solid Nickel Slide, 1/8 each, per doz. 11/6; Solid Nickel Silver, with Cigar Oper. 2/ each, per doz. 14/7. Sent post free to any part the world on receipt of price (P. O. O.).

FRANCIS S. DANGERFIELD, Proprietor and Sole Manufacturer, AUBURN, N.Y., U.S.A. C. BRANDON & CO., 16 Red Lion Square, London, Sole Agents for Great Britain and Ireland.

THIRTY-EIGHT YEARS' REPUTATION.

CANNOT BE EXCELLED.

NEATLY AND CAREFULLY PUT UP.

KILLS RATS & MICE ON THE SPOT.

TESTIMONIALS.

From Mr. James Froud, Chemist, Dorchester: — "You poison succeeds to admiration. It is as effective as an infernal machine."

From Mr. Smith, Chemist, Glasgow: — "I have not kept any other 'Vermin Killer' than yours for the last four years. It is the best I ever sold."



TESTIMONIALS.

From Messrs. P. Smith & Co., Chemists, Runcorn, Oct., 1880: — "In our opinion your 'Destroyer' is the best extant."

From Mr. James Thompson, Low Hesket, near Carlisle, to Mr. R. T. Pattinson, Chemist, Carlisle: — "Sir,—You can with confidence recommend 'Hunter's Vermin Destroyer.' It is the best thing I ever used, having often cleared stack-yards with it of both rats and mice in a day or two."

LATEST TESTIMONY.

The Royal Canine Surgery,
55 South Molton Street, London, W.,
Dec. 6, 1884.

Mr. Hunter, Dewsbury,

Dear Sir,—I have tried several advertised Rat Poisons without getting a good one. Having seen your advertisement I am wishful to give yours a trial, and shall be pleased if you will send me a 1s. packet. Stamps enclosed.

Yours faithfully,

C. ROTHERHAM.

RESULT OF TRIAL.

55 South Molton Street, London, W.,
January 12, 1885.

Mr. Hunter, Dewsbury,

Dear Sir,—I have great pleasure in telling you that your Vermin Destroyer has proved most effective in reducing the number of Rats about my premises, and if you like to publish my testimony of its value you are welcome to do so.

Yours faithfully,

C. ROTHERHAM,

Veterinary Surgeon by Special Appointment
to H.M. the Queen.

A RESPECTABLE AND SATISFACTORY ARTICLE SUPPLIED TO
RETAILERS, ON THE BEST TERMS, BY ALL THE

WHOLESALE HOUSES.

PRINCIPAL WHOLESALE DEPÔT—

DEWSBURY, ENGLAND.

ESTABLISHED 1846.

HORSE, CATTLE, AND SHEEP MEDICINES.

By Special Warrant,
Dated 27th December, 1865.

BY ROYAL APPOINTMENT.



By Special Warrant,
Dated 10th February, 1876.

DAY, SON & HEWITT,

INVENTORS AND SOLE PROPRIETORS OF THE

"ORIGINAL" STOCK BREEDERS' MEDICINE CHESTS.

For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

Patronised for over 50 years by the nobility and the principal Stock Breeders, Horse Proprietors, and Agriculturists of the British Empire.

The No. 2 MEDICINE CHEST contains the following matchless remedies:—

- "CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.
- "GASEOUS FLUID," for Colic, Scour, or Diarrhoea, and Debility.
- "RED DRENCH," for Cleansing Cows and Ewes, and for Inflammation.
- "RED PASTE BALLS," for Mares after Foaling, and Conditioning Horses.
- "BRONCHOLINE," for Husk or Hoose in Sheep, Lambs, and Calves.
- "GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

Price of Chest No. 2, with Guide to Farriery, £2 16s. 6d. No. 1 Complete Medicine Chest, in Polished Case, £2 6s. Horsekeeper's Chest, No. 4, £2 17s. 6d.

CARRIAGE PAID TO ALL PARTS OF THE BRITISH ISLES.

Admirably adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed.

Awarded "Certificate of Merit" by the National Agricultural Society of Victoria, Australia, 1871; President's Medal, Spalding, 1872; Silver Medal, Manchester and Salford Show, 1874; Silver Medal, Preston, 1875; Silver Medal, Stamford, 1875; Silver Medal, Crewe, 1875; Special Prize, National Agricultural Society of Victoria, Australia, 1875; Medal, Chester, 1876; Silver Medal, South African Exhibition, Cape Town, 1877; Silver Medal, Newcastle-on-Tyne, 1877; Silver Medal, Knutsford, 1878; Medal, North Berwick, 1878; Medal, Dairy Show, London, 1878; Silver Medal, 1879; Silver Medal, Wellingborough, 1879; Medal, Benthams, 1880; Medal, Melbourne Exhibition, 1880; Silver Medal, Stourbridge, 1881; Silver Medal, Doncaster, 1882; Gold Medal, Christchurch, New Zealand, 1882; Silver Medal, Canterbury, 1882; Silver Medal, Kettering, 1883; and Medal, Amsterdam, 1884.

CAUTION.—Beware of Imitations, and see that the name of DAY, SON & HEWITT is on all Bottles and Packets.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, BAKER STREET, LONDON, W.

And sold by Messrs. Burgoyne, Burbidges & Co., Barclay & Sons, W. Edwards, Newbery & Sons, Sanger & Sons, Hovenden & Sons, and all Wholesale Druggists, in London; Hood & Co., Melbourne; Kempthorne, Prosser & Co., Dunedin and Auckland; Fairthorne & Co., Launceston.

SPECIAL NOTICE.

AGENTS WHO HAVE NOT RECEIVED

SPRATTS PATENT

ILLUSTRATED CATALOGUE OF

**DOG, POULTRY, PIGEON & GAME HOUSES
AND APPLIANCES**

WILL OBLIGE by APPLYING to

"SPRATTS PATENT," BERMONDSEY, S.E.,

Who will also be happy to furnish a further supply, if required, for distribution.

A PROFITABLE AGENCY.

We are willing to post the district, distribute handbills, and send the first parcel on sale or return
TERMS ON APPLICATION.

STURTON'S UNIVERSAL PIG POWDERS,

Sold in Boxes, 6d. and 1s. each. Once used, customers ask for them again.

STURTON'S**ROYAL BUTTER POWDER, CREAM AND MILK PRESERVING,**

Put up in Boxes, 6d. and 1s. each. Have had many testimonials to its efficacy.

STURTON & SONS, Manufacturing Chemists, PETERBOROUGH.

A VERY PROFITABLE AGENCY.

F. GREEN & CO.,

PHOENIX

DRUG, SPICE, AND SEED MILLS, BIRMINGHAM,

The Largest Manufacturers of Cattle Condiments in the United Kingdom, beg to submit their Wholesale Price List, and to solicit a Trial Order.

GREEN'S THRIVING POWDER,

For COWS, SHEEP, PIGS, &c.

4-oz. Packets	1d.	24s. per Cwt.
1-lb. "	3d.	21s. "
2-lb. "	6d.	" "
4-lb. "	1s.	" "
7-lb. Linen Bags ..	1s. 6d.	19s. "
14-lb. Canvas Bags ..	3s.	" "
28-lb. "	6s.	" "
56-lb. "	12s.	" "
112-lb. "	24s.	" "

GREEN'S CONDIMENT FOR HORSES.

Same Sizes, Prices, and Terms as Thriving Powder.

GREEN'S CONCENTRATED CONDITION POWDERS FOR HORSES.

1-lb. Canisters	1s. each	9s. per doz.
6-lb. "	5s. "	45s. "
14-lb. "	10s. "	90s. "

GREEN'S PREPARED DOG MEAL.

1-lb. Packets	3d. each	21s. per cwt.
7-lb. Linen Bags ..	1s. 3d.	17s. "
14-lb. Canvas Bags ..	2s. 6d.	" "
28-lb. "	5s.	" "
56-lb. "	9s. 6d.	16s. "
112-lb. "	18s.	15s. "

GREEN'S POULTRY & GAME FOOD.

Same Sizes and Prices as Prepared Dog Meal.

GREEN'S MILK POWDER.

A highly Concentrated Food, and the best substitute for the Natural Milk, for REARING CALVES and other YOUNG STOCK.

7-lb. Linen Bags	1s. 6d.	19s. per cwt.
14-lb. "	3s.	" "
28-lb. "	5s. 9d.	18s. "
56-lb. Canvas Bags ..	11s. 6d.	" "
112-lb. "	22s.	17s. "

GREEN'S POULTRY & GAME SPICE.

In 4-oz. Penny Packets only. 24s. per cwt.

GREEN'S CONCENTRATED POULTRY AND GAME SPICE.

1-lb. Canisters, 1s. each, 9s. per doz.

GREEN'S AROMATIC SPICE FOR HAY.

In 7-lb., 14-lb., 28-lb., 56-lb., and 112-lb. Bags, 21s. per cwt.
Retail Price, 28s. per cwt.

PURE CRUSHED LINSEED.

17s. per cwt., net at Mills.

GROUND SPICES, SEEDS, &c.

Samples and Prices on application.

A Sample Case, containing an assortment of 2 cwt., sent Carriage Paid to any Railway Station in Great Britain, on receipt of P.O.O. or Cheque for 42s.

YIELDS 25 PER CENT. PROFIT.

OSSIDINE.

IMPORTANT NOTICE.

RICHARD COLE

(Son of the late JAMES COLE, M.R.C.S.E., F.S.A.)

BEGET to inform the Nobility, Trainers, Veterinary Surgeons, Chemists, and the general public that he has **DISPOSED** of his valuable **OSSIDINE** Patent.

The business will henceforth be carried on by the Proprietors at **DARLINGTON, DURHAM**, where all communications, orders, and remittances should be sent. **MR. RICHARD COLE** still retains a large interest in the business, but not an active one. He tenders his sincere thanks for the courtesy and great kindness he has received from his patrons. He is, indeed, proud at the wonderful success **OSSIDINE** has achieved, *not only in England, but all over the world*, in the short space of a little over seven months, the business having been commenced on the 17th June last. **MR. COLE** has no doubt of the great future before **OSSIDINE**, as it is in the hands of gentlemen of very high position on the Turf.

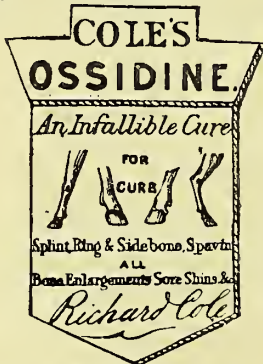
Wallingford, Berks, February 2, 1885.

BY ROYAL LETTERS PATENT.

Under the most
Distinguished
Patronage.



Under the most
Distinguished
Patronage.



TRADE MARK.

TESTIMONIAL (Selected) from **JOHN PORTER.**

KINGSLERE, March 4, 1884.

DEAR SIR,—Having thoroughly tested your

OSSIDINE

for the removal of splints, spavins, &c., I beg to say it is the very best remedy I have ever applied. Paradox, Luminary, and Ptolemy have all been cured with it. I shall strongly recommend it to all my friends. Truly yours, J. PORTER.

PRICES OF OSSIDINE:

10s. 6d. per bottle; Three, 30s.; Six, 58s. 6d

Sent on receipt of remittance to any address, carriage paid, and case free, by J. Swenden, for the Proprietors of **Ossidine**,

DARLINGTON, DURHAM.

Wholesale Agents: **BARCLAY & SON**, for London and Home Counties; and of all Chemists and Saddlers.

STRAINS, SPRAINS, RHEUMATISM, & IN HORSES AND CATTLE.

The Newest and Best Application known

NORMAN'S GALVANISED FLUID

Sold in Jars, 2s. and 3s. 6d. each.

WHOLESALE AGENTS:

LONDON.—**BARCLAY & SON**, LYNCH & CO., and **WM. EDWARDS & S.** LIVERPOOL.—**JOHN THOMPSON**, 58 Hanover Street.

AGENTS WANTED ALL OVER THE WORLD.

Liberal Terms. Printed Matter supplied.

Proprietors—**NORMAN & CO., BRISTOL.**
OFFICES—**ATHENÆUM CHAMBERS.**

LARD,
SUITABLE FOR SHEEP OR CATTLE OINTMENT,
30s., 33s., and 36s. per cwt.

JNO. COOPER, Lard Refine,
CHURCHGATE, LEICESTER.

100 Rats destroyed for a Shilling by
BARBER'S PHOSPHOR PAST,

WRAPPED NEATLY FOR THE COUNTER.

Handsome, attractive Posters supplied; if conspicuously placed will command a constant sale.

Kills Rats, Beetles,
&c.
THE DEAD VERMIN
DRY UP
WITHOUT SMELL.



Guaranteed the best
destroying Paste in

3d., 6d., 1s., 2s. 6d., and 5s. Tins. Also

BARBER'S VERMIN KILLER.

In 1d., 2d., 3d., 6d., and 1s. Packets. Kills Mice upon the spot.

Testimonial from Her Majesty's Ratcatcher, Hampton, Middlesex,
May 25, 1870.—

"I have been more than forty years employed at Hampton Court Palace, the Stables, and other buildings in and around the Royal Parks, for the destruction of rats, mice, and other vermin. I have the entire charge of this duty, and after trying all the rat poisons which I have heard of at different times, I now use **Barber's Phosphor Paste**, and **Vermin Killer**, with which alone I am able to keep the ancient places and national works free from vermin. Signed, **CHARLES SHOB.**"

ASK FOR **BARBER'S**, AND SEE THAT YOU GET IT

H. B. FIRMAN, Proprietor.

WORKS, SALISBURY. ESTABLISHED 1838.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses.

By Permission of the Hon. Board of Customs, Free of Duty.

GROUND LEAF TOBACCO OR SNUF

Greatly Reduced in Price for Agricultural Uses.

As the basis for making **FLY POWDER** it is invaluable, for **DUSTING OVER CATTLE**, to destroy Lice or Preventive, it is the **SAFEST**, at the same time the **MOST CONVENIENT** and **CHEAPEST** article for the purpose.

The Trade supplied direct from the Manufactory.

Price, in bags containing 1 cwt., £0, or in lots of 5 cwt. and upwards, £25 per ton. Tins, 1/ and 2/ each (Retail), with full directions.

Post samples sent on application free of cost.

CORRY, SOPER, FOWLER & CO. (Ld),

Bonded Tobacco Stores, **SHAD THAMES, S.E.**

OFFICES 8 FINSBURY STREET, LONDON, E.C.

**THE ART
OINERY WORKS.**

I am not only pleased, but delighted, with the shop you have just fitted for me. A. WALL, Bromley, Kent.
For Chemists' Shop Fittings, I consider your style and workmanship unique.
WILSON & SON, Chemists, Harrogate.
Both my shops at Westgate and Clacton-on-Sea are much admired, and I am well pleased with your work.
C. H. GAOSVENOR, Chemist, Clacton-on-Sea.
My shop has been admired by all that have seen it, and I am highly satisfied.
R. ADAMS, Croydon.

**BOWLING & GOVIER, Medical Shop Fitters and Shop Front Builders,
GUN STREET. BRUSHFIELD, BISHOPSGATE, LONDON.**

You have now fitted up three shops for me, each one having given me greater satisfaction; and if I required 20 shops I should put them into your hands to fit up.
I. H. BAT-MAN, Brondesbury, Kilburn.
Your Pharmaceutical Dispensing Counter I consider complete in every detail, and great care appears to have been taken in packing.
H. B. WILLIAMSON, Wanganui, New Zealand.
Your workmanship is excellent, and was completed with promptitude and dispatch.
F. J. CLARKE, Bracebridge Hall, Lincoln.

You may refer any applicant who requires his shop fitted to me. I am perfectly satisfied with the work done and the amount charged. The shop is universally admired.
J. HERRINGTON, Leighton Buzzard.
I consider your design and workmanship unequalled for Chemists' Shop Fittings, and I shall be pleased to recommend you.
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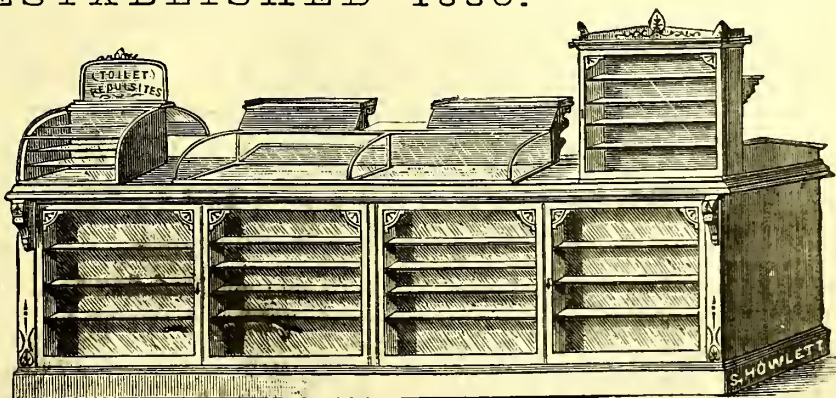
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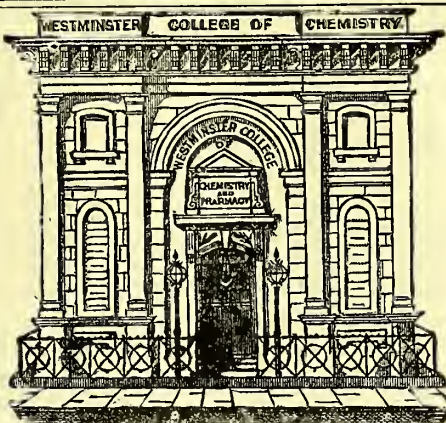
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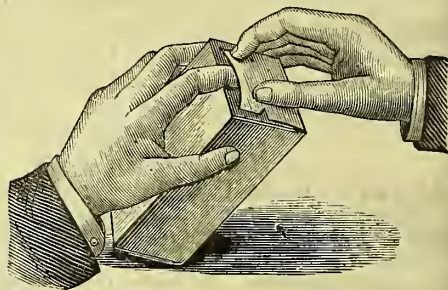
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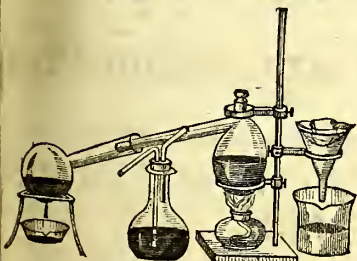
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For Silk and Fine Woollen goods. Pale Green colour, free from any excess of alkali, has a most pleasant smell, and is by far the Best Soft Soap for Laundry work.

“BBB” & “BB”

QUALITIES.

In all packages, to suit all markets and buyers.

These are suitable for all purposes for which Soft Soaps are used. They are “Arger” coloured, and free from any unpleasant smell.

**MAKERS OF B.P. SAPO MOLLIS AND ALL MEDICATED
SOFT SOAPS.**

Awarded Gold Medal at Calcutta Exhibition, and Bronze Medal at the I.H.E. London, 1884.

THE "PET" FEEDING BOTTLE

Is one of the Most Saleable Articles of its kind ever introduced.

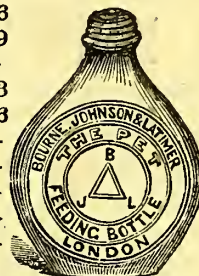
They are neatly put up in strong boxes with handsome labels. The following is a List of the most popular numbers:—



Nos. 17 and 22.

No.		Per doz.
6.	Green glass bent neck, white fittings	... 3/6
7.	" " " black "	... 3/9
10.	" screw glass stopper, white fittings	4/-
11.	" " " black "	4/3
14.	White flint glass, china caps	... 7/6
17.	" screw glass stoppers	... 8/-
19.	" pure tin caps	... 8/-
20.	" gilt metal caps	... 12/-
21.	" gilt china caps	... 12/-
22.	" glass screw stoppers	... 12/-

Nos. 6, 7, 10, and 11 are also supplied in boxes containing 1 gross at specially reduced prices.



Nos. 19 and 20.

THE NEW NIGHT LAMP AND FOOD WARMER

Is the CHEAPEST LAMP ever offered to the Public.

Price 22/- per dozen.

Consumes about a Pennyworth of Petroleum Oil per week.



THE NEW EARTHENWARE INHALER,

With Burnt-in Directions for Use.
Price 18/- per dozen.

The only one that can be sold at 2/6 and yield a good profit.



MUSICAL BELLS.

A new Indiarubber Teething Pad, with Nickel Plated Bell, very sonorous.

Twelve on a Show Card, 4/6.

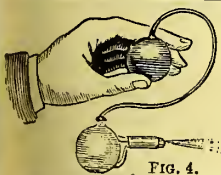


FIG. 4.

SPRAY PRODUCERS.

Glass Spray, for Perfume, as fig. 1	... per doz.	18/-
" Throat, as fig. 4	...	27/-
Double-action Spray, as fig. 5, with Nickel Plated Mounrs	...	36/-
" " " Vulcanite	...	36/-



FIG. 1.

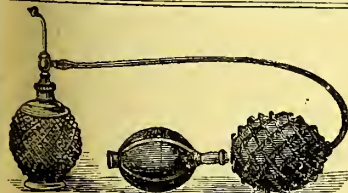


FIG. 5.

We have also a

DOUBLE-ACTION SPRAY,

AS FIG. 5,

But with smaller Balls, at 14/- per dozen.

BOURNE, JOHNSON & LATIMER

(SUCCESSORS TO BOURNE & TAYLOR) (ESTABLISHED 30 YEARS),

WHOLESALE AND EXPORT DRUGGISTS' SUNDRIESMEN,

34 & 35 CASTLE STREET, HOLBORN, LONDON, E.C.


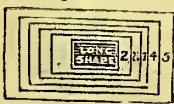




IMPORTANT TO PHYSICIANS, SURGEONS, & CHEMISTS.

ROYAL BALSAMIC

PLAISTERS

MANUFACTURED BY WILLIAM MATHER,

Are manufactured of the same kind of ingredients as those sanctioned and ordered by Dr. Andrew Smith, Director-General of His Majesty's Army and Navy Ordnance Medical Department, for the use of the Soldiers and Marines in Scutari Hospital.

LEATHER PLAISTERS.	No.	Full Size of Leathers.	Retail Prices.	Per doz.	Royal Balsamic Plaister.	Cod Liver Oil.	Plain Plaister.	Emp. Roborans or Calefaciens	Emp. Belladonna. No. 1.	Emp. Belladonna. No. 2.
		Inches.	d.		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Heart Shape 	1	3 x 4½	1 size.	"	0 8	0 8	0 8	0 8	1 4	1 1
	2	4½ x 6	1½ "	"	1 0	1 0	1 0	1 0	2 0	1 1
	3	4½ x 7½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 2
	3½	5½ x 7½	3 "	"	2 3	2 3	2 0	2 0	4 0	3 3
	4	6½ x 8½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 4
	5	8 x 9½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 6
Long Shape 	1	2½ x 4	1 "	"	0 8	0 8	0 8	0 8	1 4	1 1
	2	4½ x 6½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 2
	2½	4½ x 8½	3 "	"	2 3	2 3	2 0	2 0	4 0	3 3
	3	5½ x 9½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 4
	4	6½ x 11	6 "	"	4 6	4 6	4 0	4 0	8 0	6 6
	5	7½ x 14½	8 "	"	6 8	6 8	6 0	6 0	12 0	8 8
Oval Shape 	1	4½ x 6½	2 "	"	1 6	1 6	1 4	1 4	2 8	2 2
	2	6½ x 8½	4 "	"	3 0	3 0	2 8	2 8	5 4	4 4
	3	7½ x 9½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 6
Saddle Shape 	1	6½ x 12½	6 "	"	4 6	4 6	4 0	4 0	8 0	6 6
	2	7 x 15	8 "	"	6 8	6 8	6 0	6 0	12 0	8 8
	3	8 x 16	12 "	"	8 8	8 8	8 0	8 0	15 6	12 12
Wrist 	1	3 x 10½	3 "	"	2 3	2 3	2 0	2 0	...	...
Knee 	2	4½ x 15	6 "	"	4 6	4 6	4 0	4 0	...	...

BREAST PLAISTERS.	No.	Size of Leather	Retail Prices.	Per doz.
			d.	s. d.
Emp. Plumbi, for Ladies' Breasts	1	Diam. 6½ in.	4 size	2 8
Emp. Plumbi, for Ladies' Breasts ..	2	" 7½ "	6 "	4 0
ditto spread on Chamols ..	1	" 6½ "	.. ..	4 0
ditto ditto ..	2	" 7½ "	.. ..	6 0
BREAST PLAISTERS.	No.	Size of Leather	No. 1 Quality. Per doz.	No. 2 Quality. Per doz.
			s. d.	s. d.
Emp. Belladonna, for Ladies' Breasts	1	Diam. 6½ in.	5 4	4 0
ditto	2	" 7½ "	8 0	6 0
ditto spread on Chamols	1	" 6½ "	8 0	6 0
ditto ditto ..	2	" 7½ "	12 0	9 0

HOSPITAL PLAISTER, on Black Cloth, 16 in. wide, doz. yds. 8/0
" " " " " " " " " " " " 8/0

Every other description of Plaister used in Pharmacy or Private Formulae spread on any material, to suit any climate.

PLAISTERS, SPREAD.—Prices per Dozen Yards. 16 Inches in width.

NAME	Glazed Cloth	Unglazed Cloth	Linen	Swans-down	Mole-skin	Skin-Leath.
Emp. Adhesivum Opt. ..	4/0	5/6	12/0	12/0	21/0	4/
" Adhesivum	3/6	..	..	..	..	5/
" Ammon. c. Hydrarg ..	16/0	..	..	30/0	36/0	6/
" Antim. Pot. Tart. ..	10/0	..	..	24/0	30/0	5/
" Belladonna	18/0	20/0	27/0	27/0	36/0	5/
" Calefaciens	11/0	12/0	15/0	15/0	24/0	4/
" Cerat Saponis	8/0	9/0	14/0	14/0	24/0	4/
" Dreadnought	9/0	10/0	14/0	14/0	24/0	4/
" Elemi	9/0	10/0	14/0	14/0	24/0	4/
" Ferri	9/0	10/0	14/0	14/0	24/0	4/
" Galbani	14/0	..	..	24/0	30/0	4/
" Hydrarg.	14/0	15/0	18/0	18/0	27/0	4/
" Iodine	16/0	..	..	30/0	36/0	6/
" Opii	18/0	20/0	27/0	27/0	36/0	6/
" Picis Co.	11/0	12/0	15/0	15/0	24/0	4/
" Plumbi	5/6	6/6	12/0	12/0	21/0	4/
" Potass. Iodid.	16/0	..	..	30/0	36/0	6/
" Resinac	5/6	6/6	12/0	12/0	21/0	4/
" Roborans	6/0	7/0	12/0	12/0	21/0	4/
" Saponis Alb.	5/6	6/6	12/0	12/0	21/0	4/

MANUFACTURED BY W. MATHER,

DYER STREET, HULME, MANCHESTER, ENGLAND.

PRICE LISTS SENT ON APPLICATION.

London Wholesale and Export Agents: Messrs. MACE & HALDANE, 77 Milton Street, London, E.C.

NEWBERY'S 1885 CATALOGUE

BERDOE'S PERFUMES, IN SHOW BOTTLES, from 11/6 EACH.



SEE NEWBERY'S 1885 CATALOGUE, p. 234.

PATENT MEDICINES. DRUGGISTS' SUNDRIES.

SUGAR COATED PILLS. in Patent Show Vases, from 9/4 each.



SEE NEWBERY'S 1885 CATALOGUE, p. 186.

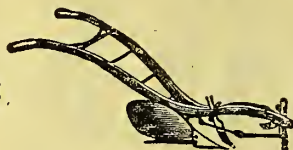
F. NEWBERY & SONS, ESTABLISHED A.D. 1746.
1 KING EDWARD ST., LONDON.

Silver Medal, Paris, 1878.

Philadelphia, 1876.



TRADE



MARK

A.D. 1715.



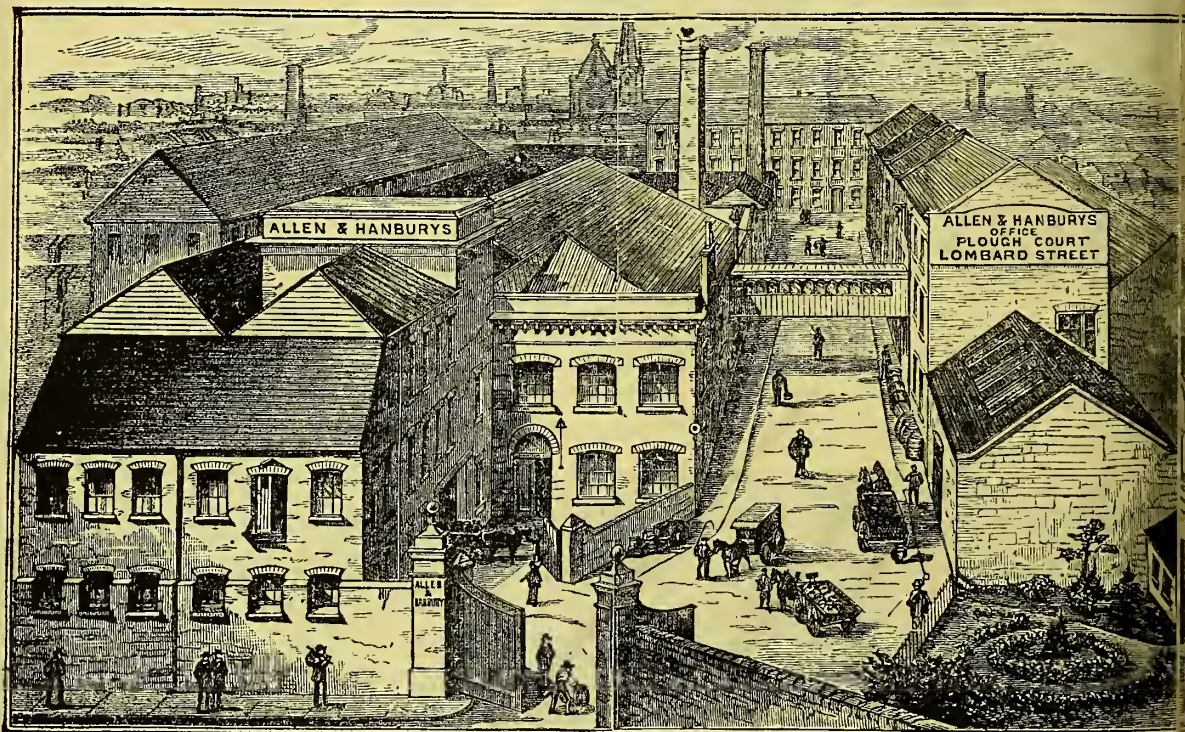
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WHOLESALE AND EXPORT

DRUGGISTS,

MANUFACTURING, PHARMACEUTICAL & ANALYTICAL CHEMISTS

SPECIAL MANUFACTURERS OF COD-LIVER OIL, MALT EXTRACT,
MEDICATED AND OTHER JUBUBES AND PASTILLES, ETC.



WORKS: BETHNAL GREEN, E.

Price List of Drugs, Chemicals, Pharmaceutical Preparations, and Specialties, free on application.

Office: PLOUGH COURT, LOMBARD STREET,
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SCALE OF CHARGES FOR ADVERTISEMENTS.

All advertisements intended for insertion in the current Month must be sent to the PUBLISHER OF THE CHEMIST AND DRUGGIST, 43 Cannon St., C., on or before the 15th, except Extra and Assistant Advertisements, which can be received to the 10 A.M. on the morning previous to publication.

		1 INSERTION NET		4 INSERTIONS		7 INSERTIONS		13 INSERTIONS	
To secure the Series Rates, Orders must be given in advance		In "The Chemist and Druggist" D & Y and all ordinary issues		If ordered for January or July special issues only		EACH NET		EACH NET	
One	Page	£7	10	0	0	£5	0	£4	10
Half	"	4	2	0	0	2	10	2	9
One-third	"	3	0	0	0	1	10	1	8
Quarter	"	2	8	0	0	1	0	1	6
One-sixth	"	1	17	0	0	1	0	1	0
One-eighth	"	1	7	0	0	0	18	0	14

N.B.—An order for 13 insertions means 13 in THE CHEMIST AND DRUGGIST and 1 in THE CHEMIST'S AND DRUGGIST'S DIARY. The same rule applies to an order for 7 insertions, or to an order for insertion until counted, if such order is in force in October of any year.

THE PROPRIETORS DO NOT VARY THEIR QUOTED TERMS UNDER ANY CIRCUMSTANCES.

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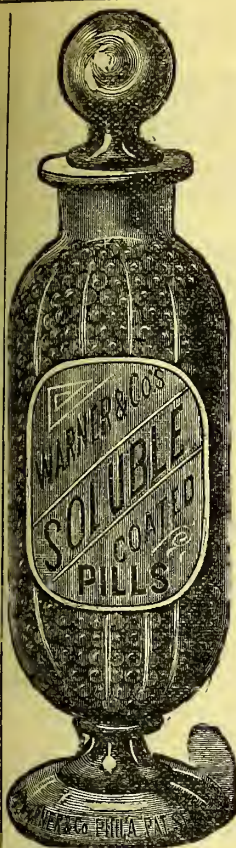
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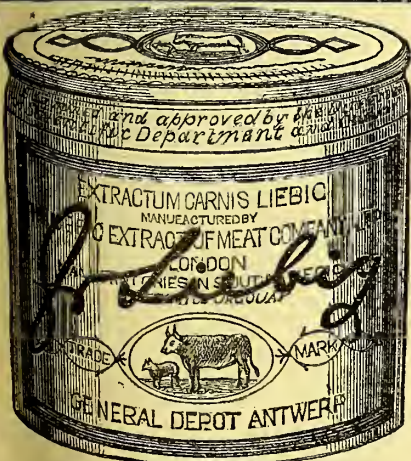
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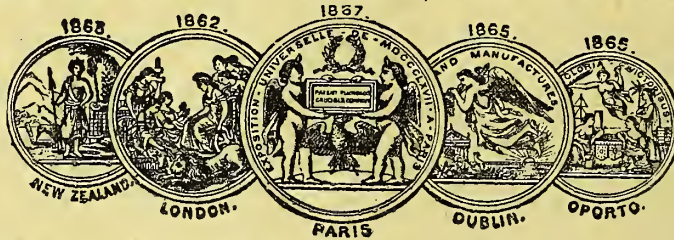
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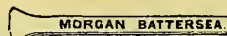
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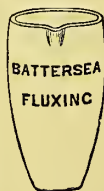
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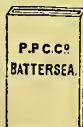
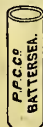
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E	4 1/2	3 1/2	1/4	0/9	F	5	3 1/2	1/5	1/0
G	5 1/2	4 1/2	2/0	1/0	H	5 1/2	3 1/2	2/1	1/3
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DR. QUINLAN, St. Vincent's Hospital for Consumptives, Dublin, writes:—"I conducted an inquiry in the hospital on the merits of the above therapeutical, which has resulted in proving that patients treated on Mullein Extract solely, and to the exclusion of Cod-liver Oil, Kousmiss, or any other weight increaser, made a decided increase in weight, the cough ceased, the patients improved, and were much gratified at the treatment."

MULLEIN CIGARETTES (Patented) for Asthmatic Affections

THE MULLEIN MANUFACTURING CO, UPPER NORWOOD, LONDON, S.E.

PRICES, 1s. 1'd., 2s. 9d., and 4s. 6d.

ESTABLISHED 1843.

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WHOLESALE AND EXPORT

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DENTIFRICE WATER.

Sells well everywhere, its beneficent qualities being attested to by physicians in all parts of the world. (*See Testimonials.*)

In 1s. 6d., 2s. 6d., 4s. 6d., and 8s. 6d. Bottles.

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sent post free on application.

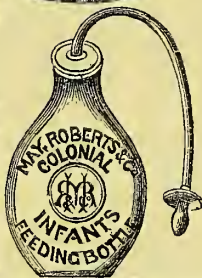


FEEDING BOTTLES,

Green Glass Bottles, Boxwood-topped Corks, with Best White Rubber Fittings.

"THE POPULAR" ... 23/5 per gross.

Packed in One-gross Casks (Cask free).



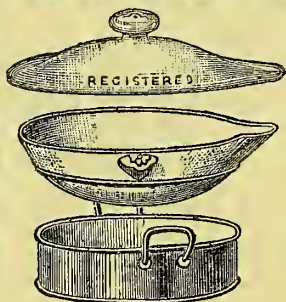
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Packed in One-gross Casks (Cask free).

The above, with White Glass Bottles, 2/- per gross extra.

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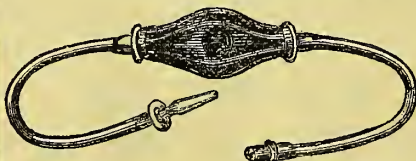
"MAY-ROBERTS" WATER BATH. REGISTERED.



This Water Bath will supply a long felt want amongst Chemists and Perfumers, where small quantities of materials have to be dealt with.

The old form of Water Bath necessitates the use of a second vessel for pouring the melted Pomade, Cream, or other substance into the bottles or jars in which they are sold. In the "MAY-ROBERTS" Water Bath the earthenware bowl can be lifted out of the tin containing the boiling water, the process of cooling being thereby very much expedited, and the contents can be poured into the bottles or jars direct from the bowl. The Bath is also supplied with an earthenware cover. 5-pint, 5/6 each.

HIGGINSON'S ENEMAS.



BEST Quality Rubber—Green, Black, or White—complete with Vagina Pipe and Shield per dozen 28/3

Ditto, Disconnecting 27/3

SECOND Quality—Grey Rubber—complete with Vagina Pipe and Shield per dozen 18/6

5% discount on £5 worth, with or without other "Sundries."

NO TRAVELLERS EMPLOYED. Buyers are therefore spared their expenses.
COMPARE OUR PRICES.

EXCHANGE COLUMN.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the Advertisement by the Publisher of **THE CHEMIST AND DRUGGIST**, and all correspondence relating to it must be addressed to the "Publisher of **THE CHEMIST AND DRUGGIST**, Colonial Buildings, Cannon Street, London, E.C.," the envelope to be endorsed also with the number. The Publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

Dental and Surgical.

Night pairs dental forceps, various, 2s. 6d., pair having duplicates. Campkin, Cambridge.

Water-bed, Maw's, 72 by 36, good condition; Windsor invalid chair, by Carter; pair crutches, Maw's fig. 3, good as new. Brown, Chemist, Dover.

Outside dentist's show-case, nearly new, 12s. 6d. cost 25s.; celluloid apparatus, with 3 lbs. glycerine and celluloid, 20s., cost 40s., very little used. Norworthy, Dentist, 108 Stoke's Croft, Bristol.

Superior mahogany instrument-case of 16 drawers, price 42s.; Dental Company's vulcaniser and press, cost 6l. 10s., price 4l.; 2 gasometers, 40s. and 30s.; Ash's 5l. 10s. scalloped pedestal spittoon, 60s.; Ash's 12l. 12s. fluting-mills, 2l.; Ash's 35l. Morrison chair, 18l. Dentist, 172 Oxford Road, Manchester.

Drugs and Chemicals.

Pot. Iodid, Crawshaw's 6d. dyes; what offers? Royle, Stockport.

About 20 lbs. English beeswax, at 1s. 6d. Ellidge, Chichester.

30 lbs. gum olibanum, 9d., or exchange. Gater, Peckham.

Symes' musk, 4-oz. bottles, 21s. each; pot. iodid., B.P., 10s. 6d. per lb.; re-sublimed iodine, 10d. per oz. Richardson, Chemist, Alford.

Silver chloride, pure, 4s. oz.; also quantity of bichloride in tins; what offers? Willis, Chemist, Stockport.

Potass. Iodid., 11s. per lb.; 3 lbs. for 31s. 6d., 7 lbs. for 70s.; warranted best make. J. W. Feltwell, Chemist, 91 Hammersmith Road, W.

Four Winchester's lemonis, fine; four original bottles otto rose, virg.; 28 lbs. gum myrrh; 14 lbs. bals. toint.; 14 lbs. opium Turkey, hard, fit for tincture; 28 lbs. gum Benjamin; offers wanted. A. Jones, 21 Piercefield Street, Haverstock Hill, N.W.

Optical.

Offers wanted for about 7 doz. steel spectacles, 68.8.

Proprietary Articles.

Sixteen 11s. solar elixir, at 6s., carriage paid. 64/36.

Apparatus.

New drug-mill by Follows & Bate; cost five guineas; half price, or exchange; not been used. Kemp, Horncastle.

Educational.

Tully's materia medica cabinet, cost 17. 1s.; Tully's "Herbarium," cost 7s. 6d., never been used; what cash offers? Arthur Wood, Ulleshthorpe, Lutterworth.

The indigenous officinal (medical) plants, beautifully mounted on cardboard, only 7s. 6d.; indigenous wild flowers, equally cheap. Higginson, Newferry, Birkenhead.

Botany.—The indigenous officinal plants of the Pharmacopoeia, beautifully mounted on cardboard, only 7s. 6d.; British wild flowers, mounted or unmounted, equally cheap. Higginson, Newferry, Birkenhead.

Attfield's "Chemistry," 6th edition, 7s. 6d.; Willis' "Materia Medica," coloured plates, 6s. 6d., cabinet 3s.; "Elements of Pharmacy," 4s. 6d.; Pereira's "Selecta Prescripta," 4s.; all unsoiled, carriage paid. "Beta," 319 Oxford Road, Reading.

Set of illegible autograph prescriptions (original), 2s. 6d., as presented to the Pharmaceutical Society of Ireland for their examinations; 30 prescriptions (catch and difficult) given to dispense at Minor during past 12 months, 2s.; 50 questions asked of successful students at last Minor, 1s. 1d.; lot of cheap, almost new, books; stamp for list. Saunders, Medical Tutor, 6 Rochester Square, N.W. (Note change of residence.)

Literature.

Pharmaceutical Journal posted Mondays; what offers? Lewis, Great Western Street, Wednesbury.

Chemist and Druggist for 1881-82-83-84, in clean condition; what offers? Wm. Gurnell, Chemist, Ryde.

Squire's "Companion," 8th edition, new, highest offer accepted, or exchange in drugs. "Medicus," Newferry.

Withering's "British Plants," 4 vols., 31 plates, calf, good copy, 10s.; Savory's "Domestic Medicine," nearly new, 2s. 6d. J. Brown, Amphilil.

Pharmaceutical Journal posted Monday morning, offers wanted; Taylor's "Medical Jurisprudence," 6th edition, 3s.; Willis' "Companion to Practical Botany," 2s.; Thorowgood's "Materia Medica," nearly new, 3s. 6d., published at 6s. 6d. Judge, 3 Pownall Terrace, Kennington Road, London.

Soda-water Plant.

Barnett & Foster have some second-hand soda-water machinery of their own for sale. Apply, 26r Eagle Wharf Road, Hoxton, N.

Second-hand soda-water plant—several in stock. Address, Bratby & Hinchliffe, Sandford Street, Ancoats, Manchester.

Bowkill's tube-machine for patent bottles, with glass barrel syrrup-pump; pressure-gauge, 4-inch, indicated to 200 lbs.; both in good condition; offers wanted. Varney, Chemist, Oxford.

Soda-water plant by Barnett & Foster, with half-horse "Otto" vertical gas-engine and syphon-filler; all in perfect working order for 300 dozen daily; ready for instant delivery; may be seen in action; price for all 60l. Parsons, Gallowtree Gate, Leicester.

Shop Fittings.

Show-bottles, specle-jars, shop-jars (all sizes and colours), lamps, store-bottles, glazed cases. 21 Broadway, Deptford.

Bunsen gas stove and stand, as Maw's fig. 2, forwarded free for 42 stamps. Kneen, Anerley Pharmacy, London, S.E.

The complete fittings of a chemist's shop, cheap, owing to alterations. James, Upper Tulse Hill, Brixton, S.W.

Specie-jar, 27 inches high, plain gilt top, as fig. 20 Maw's list, marked "Magnesia," quite new; what offers? H. H. Heslop, Kingswinford, Dudley.

Bent plate-glass counter-case, 22 in. long, 10 in. wide, 20s.; two 1-gallon carboys, out stoppers, 6s. the pair. Smith, 723 Old Kent Road.

Sign-board, 12 inches by 96 inches, word "Pharmacy" cut in gold letters on black ground and varnished; never been used; cheap at 12s. Ashworth, 161 Bury New Road, Manchester.

One-arm nickel-plated fountain for counter use, and 6-gallon portable copper cylinder for aerated water, tubing, &c., all complete, and as good as new; price 6l., cost 12l. Sage, Chemist, Frome.

Labelled shop-rounds: narrow-mouthed, 51 40-oz., 49 20-oz., 22 10-oz., 32 3-oz.; wide-mouthed, 24 40-oz., 36 20-oz., 10 3-oz.; 13 40-oz. blue syrups; 4 32-oz. oils, tin covers; 25 2-lb., 20 4-oz. white-covered pots, fig. 13. Hunn, Chemist, Henley-on-Thames.

Counter scales and weights, 15s.; 4-gallon pear-shaped carboy, 15s.; homoeopathic case, containing medicines, 10s.; narrow and wide mouthed unlabelled shop-rounds, 5d. each; 12 4-lb. ointment-jars, dark blue, 25s. N., 76 St. George's Road, Tufnell Park.

Second-hand Fittings.—About 25-foot druggist wall-fittings, 12-foot wall-case, window enclosure, dispensing-screen, desk and case, cigar case, four carboys, two specle jars and stands, drug-scales, 14 dozen bottles and pots; 38l. Hawke & Son, London.

Two flat ebonised plate-glass counter-cases, 6 feet long, 18 inches wide, each with three doors, silver-plate backs, cost 9l. 10s. each, to make room for shop alterations, no reasonable offer refused, in good condition; one soda-water stand, fig. A 59 Maw's list, cost 4l. 10s., will take half price. Longley, North Street, Leeds.

Second-hand Glass, &c.—Two specle jars, arms, covers, 21 in., and stands, 3l.; 4 specle jars, sorolls, covers, 28 1/2 in. high, and plinths, 30s. each; three 3-gal. carboys, and one 2-gal., flat front, and stands, 27s. 6d.; two 3-gal. cylinders, 10s.; 15 1-lb. blue pots, and 55 stoppered rounds, no labels, 33s. Hawke & Son, London.

One 12-ft. range, second-hand, drawers newly painted mahogany, with gold labels and glass knobs, lockers under, 130s.; 1 12-ft. range, 66 new mahogany-fronted drawers, with plate-glass labels and crystal knobs, 97. 10s.; 4 4-gallon carboys, good shape, 36s. lot; 1 4-ft. dispensing-screen, as Maw's A 56, in very good condition, 60s.; 48 new 10-oz. narrow-mouthed rounds, labelled, 36s. lot; 12 3-lb. new white jars, labelled, 18s.; 2 8-gal. pear-shape carboys, 15s. each; 1 bent-front toothbrush case, 18 in. long, 21s.; 1 6-ft. ebonised dispensing-screen, with mirror centre, very handsome, 67. 10s.; 1 4-ft. counter-case, similar to A 6 Maw's. R. Tomlinson, Midland Medical Fitting Works, 18 St. Paul's Square, Birmingham.

Second-hand Fittings.—Plate-glass counter-case 43 in. long, 18 in. wide, trays, 27s.; mahogany wall-case, three bent plate-glass flaps, silver and plate ends, glass drawers, 73½ in. long, 21 in. deep, 19½ in. high, 77. 10s.; counter-case, as Maw's A 4, 42 in. long, 23 in. wide, 23 in. high, no carving, 67s.; mahogany wall glass-cases, lower compartment with open shelving pilasters, 132½ in. long, 100 in. high, 87s.; mahogany window-enclosure, ornamental glass; plate-glass fascia, black ground, embossed "Pharmaceutical Chemist," 146½ in. by 14 in., 37. 10s.; 13 plate-glass shelves, polished edges, various lengths and widths, 2s. each; 2 ditto, 68 in. by 6 in., and 6 brackets, 15s.; 2 counter gas pillars, 15s.; 5 window do., 12s. 6d. Hawke & Son, Wild Court, Great Wild Street, London.

Special Notice.—The whole of the stock, fixtures, show-cases, and utensils, suitable for all trades, will be sold at a great sacrifice. To save removal to more extensive premises (of which due notice will be given). Counters, 6 ft. long, 7 ft. long, 8 ft. long, 8½ ft. long, 9 ft. long, 10 ft. long, 11 ft. long, 12 ft. long, 13 ft. long, 14 ft. long, 16 ft. long, 18 ft. long, as A 61, 62 Maw's—these are of the best quality, nearly new, from a co-operative store; counters, 8 ft. long, 10 ft. long, 11 ft. long, 12 ft. long, 13 ft. long, 14 ft. long, 14 ft. long, as fig. A 60 Maw's; quantity nests counter-drawers, to go under retail and dispensing counters; bent plate-glass counter-cases, 2 ft. long 30s., 2½ ft. long 35s., 3 ft. long 60s., 4 ft. long 75s., 6 ft. long 57s.; counter-cases, A 1, 3, 4, 5, 6, 8, 9, 10, 12, 13, 15, 16, 17, 18 Maw's; upright counter-cases, with and without desks, A 31, 32, various heights; cigar-cases, A 34, 35; sponge-cases, A 41, 43, 42; show-stands, A 38, 40; dispensing-case screens, 3 ft. long, 3 ft. 6 in. long, 4 ft. long, 4½ ft. long, 5 ft. long, 6 ft. long, 7 ft. long, as A 54, 55, 56 Maw's; 5 ft. long, 6 ft. long, 7 ft. long handsome dispensing-screens, with mirror centre-glass case at each end; soda-water stands, A 57; dispensing counter and cases complete, A 66, 67, 68; plate-glass case-fronted counters, A 63; drug-drawers, A 79, 80, all lengths; window-enclosures A 81; shop-fittings complete, with gold and glass labels, A 82, 83, 84, 85, 86, 87, 88 Maw's, all sizes; shop chairs, stools, steps; quantity gold-labelled shop bottles and jars, all sizes; specie-jars, carboys, scales for shop or warehouse, and weights; tea and coffee, canisters, oil-cisterns, iron and compositions mortars and pestles, composition funnels, copper measures, glass percolators, pill-machines, mixing mills, store-canisters, stamped graduated glass measures, all sizes; quantity partitioning, shop doors, shelving, warehouse counters, fittings, &c.; quantity plate-glass shelves with polished edges, mirrors in frames, and other miscellaneous goods too numerous to mention. Lloyd Kayner, General Shopfitter, 46 De Beauvoir Crescent, Kingsland, London, N.

Nest 45 mahogany drawers, 6 ft. long, 80s.; nest 32 painted drawers, 6½ ft. long, with lockers 55s.; nest 40 drawers, 7 ft. long, with 4 lockers, 70s.; nest 59 mahogany drawers, with 4 lockers; curved counter glass case, 32 in. long, 17. 15s.; flat ditto, 36 in. long, 27. 10s.; bent plate-glass counter-case, 46 in. long, 3 trays, 34s.; flat ditto, 39 in. long, 27. 10s.; curved plate-glass counter-case, 42 in. long, Treble's, 27. 2s., imperfect; large upright ebonised wall glass cases, 4 doors, spring catches, 92 in. long, 72 in. high, 14 in. deep, in 4 distinct sections, 57. lot; 2 upright ebonised glass cases, each 153 in. long, 32 in. high, 15 in. deep, each with 8 doors and spring catches, suitable for counter-fronts, 47. 10s. each; nest 28 shop-drawers, 27s.; mahogany-top counter, 9 ft. long, consisting of 4 zinc-lined bins, 47s.; 20-oz. engraved acid-bottles; 2 prescription-desks; set 22 4-lb. blue-labelled ointment-jars, 2s. 8d. each; quantity stoppered shop-bottles, all sizes, with and without gold labels; 2-gallon iron mortar and pestle, 12s. 6d.; 3-gallon ditto, 18s.; 1 24 5-grain pill-machine, 11s. 6d.; 1 pair 2-lb. French counter-scales, 12s.; 1 pair 4-lb. ditto, 15s. 6d. Simcock, 17 Guildford Street, Leeds.

E. Natali has for sale a large quantity of fittings, suitable for chemists, grocers, &c., which must be sold at once on account of alterations; no reasonable offer refused. Glass counter-cases, bent plate-glass, 2 ft. long, 30s.; 2 ft. 6 in. long, 35s.; 3 ft. long, 60s.; 3 ft. 6 in. long, 70s.; 4 ft. long, 75s.; 5 ft. long, A 18, 57s.; 6 ft. long, A 18, 57. 10s.; 8 ft. long, 87s.; toothbrush cases, bent-plate, A 10, to open at back, 30s.; ditto, revolving-front, 55s.; A 9, 30s.; plate-glass cases, A 2, 3 ft., 35s.; 3 ft. 6 in., 40s.; 4 ft., 50s.; 5 ft., 60s. Wall-cases, 12 ft. long, 67. 10s.; 10 ft. long, 9 ft. high, 207s.; 11 ft. long, 74s.; 7 ft. 6 in., as A 86, 117. 10s. Fixtures, drawers, shelving, with cornice over, A 84, 6 ft. long, 67s.; 8 ft. long, 87s.; 10 ft. long, 107s.; 12 ft. long, 127s.; also as A 82, 12 ft. long, with cupboards, drawers, shelving, &c., 97. Counters, painted-fronts, mahogany-tops, 5 ft., 6 ft., 8 ft., 10 ft., 12 ft., 14 ft.; ditto, with polished oak fronts, 7 ft., 10 ft., 14 ft., counters with mahogany polished fronts, 9 ft. long, 12 ft. long, 18 ft. long; counters, with mahogany and plate-glass cases in front, 4 ft., 6 ft., 9 ft., 12 ft., 14 ft.; dispensing-screens, 5 ft. 6 ft., 7 ft. 6 in., as fig. A 55; 3 ft., 3 ft. 6 in., 4 ft., as A 54; dispensing-screens, any size, glass case at each side, silvered plate-glass centre, with marble slab in front, very elaborate, 77s.; desks, with cases in front, 40s., 50s., 60s., with silvered glass back, inside case, 65s.; sponge-cases, A 41, 60s.; A 43, 95s.; show-stands, A 37, 55s.; as fig. 5, 50s.; fig. 6, 60s.; specie-jars, with gold covers, 27 in. high, royal arms &c., 80s. pair; a quantity of blue and white ointment-jars; mortars (new), funnels (new), pill-machines (new), to cut 24, 16s.; black stock bottles (new), labelled any names, 15s. doz.; royal arms, splendid condition, for outside shop, 45s.; a 12-ft. run drawers, with shelves and cornice over, lockers under, glass knobs and glass labels, 77. 10s.; 30 doz. good gold-labelled bottles, 8s.; 2 12-gal. carboys and stands, 36s. each; a quantity of mahogany-fronted shelving, pilasters, cornice with fancy iron cresting on top, cheap; 18-foot run glass cases for wall, 6 ft. high, glass doors top and bottom, could cut these to suit a purchaser: 14-ft. 6-in. mahogany-top counter, with glass cases in front, fitted at back with 44 drawers. E. Natali, 207 Old Street, near Pitfield Street, London, N.

Formulae.

Genuine Recipes.—Quinine wine (aromatic), splendid flavour; balsamic cough syrup; 12 stamps each. "Snowball," 22 City Road, Newcastle-on-Tyne.

Ten popular perfumes, equal to the leading brands, and far superior to any published formulae, 17. 10s.; a single recipe, 5s.; these have now been retailed seven years, and are preferred by my customers before all other makes. Pharmaceutical Chemist, 124 Queen's Road, Norwich.

Tie mixture, an almost certain cure for the toothache; almond tablet, glycerine jelly (perfectly clear), cold cream, are all satisfactory in use and elegant in appearance; tooth-paste, cheap to make and pleasant to use; formulae 1s. 6d. each, two for 2s. 6d. W. Arthur, 31 Thomas Street, Cheetham Hill, Manchester.

Reliable Recipes, wanted daily, all guaranteed genuine, as supplied to over 1,000 chemists at home and abroad; particulars of any on application; detailed list of 280, post free. Note my advertisements these last four years in this Journal. "Satisfaction guaranteed." All communications are strictly confidential, or I could give over 500 testimonials.—"Glycerine Cream," an elegant preparation for roughness of skin, invaluable to a1, certain sale; "Entirely New Remedy for Toothache," gives instant ease, not injurious to other teeth; "Nigerine," jet-black, waterproof patent blacking, cheaper, sweeter and better than Nubian; "Digestive Relish," best and cheapest sauce in creation, from 3s. gallon; "Lupuline Bitters," equal to American in every respect, one-third price; "Limes and Glycerine," elegant, creamy, snow-white, quite inseparable, pronounced best in market; "Foaming Dentifrice," resembles Floriline, costs one-eighth; "Rheumatic Embrocation," most excellent, cannot be surpassed in cheapness and efficacy; "Blood-purifying Powder" (London surgeon's recipe), popular spring and autumn remedy; "Anti-spasmodic Elixir," simple reliable, always efficacious; "Camomile and Quinine Pills" for Indigestion, &c., frequently preferred to Norton's; "Effervescent Depurative Saline," *facsimile* of Eno's, costs 10d. lb., entirely soluble, keeps well; "Cryptozymosis," certain speedy cure for gleet, &c.; "Mist. Gonorrhoea" (capi), nauseous taste masked, unfailing remedy; "Hair-restorer" (*sine sulphur*), clear, sweet, economical, confidently recommended; "Liver Pills" (vegetable), gentle action, always effectual; "Lavender Water," superb fragrance, lasting, equals Sainsbury's; "Occasional Pills" (for ladies), most reliable, preferred to Widow Welch's; "Essence for Deafness," simple and effectual; "Podophyllin and Taraxacum," pleasant taste, vastly superior to similar preparations; "Pile Powders and Ointment," cure and prevent hemorrhoids; "Quinine and Iron Tonic," bright and unchangeable, resembles Pepper's; "Worm Syrup," entirely vegetable, pleasant and rapid action; "Ringworm Specific," certain rapid cure; "Tie Pills," unequalled in efficacy, many testimonials; "Chlorodyne," inseparable, perfectly soluble, quits equals Brown's; "Marking Ink," indelible, no waste, creditable to seller; "Fumigating Ozonic Ribbon," cheapest, sweetest, perfect disinfectant. All above guaranteed genuine formulae, are profitable, and may be recommended with confidence. Price 1s. 1d. each, 3 for 2s. 6d., 25 for 17, post free, with full particulars for making, &c., by T. Brooks, Chemist, Louth, Lincs. N.B.—Detailed list sent post free.

fragrant foaming dentifrice (like "Floriline"); marking ink, *sine* silver (aniline), writing executed defies chemicals; effervescing fruit saline (resembles Eno's); magic neuralgic drops (never-failing remedy); quinine and iron tonic (resembles Pepper's); lime-juice and glycerine (inseparable, white as milk); blue-black ink (non-corrosive, *sine* iron or galls); cherry tooth paste (never ferments, like Gosnell's); brilliantine (inseparable, like Rimmel's; pill-coating, (pearly white, no mucilage or mastic used); glycerine jelly (perfectly transparent); crimson marking ink; hair-restorer (colourless, no deposit, *sine* silver); aromatic vinegar; toilet vinegar (as Rimmel's); plate-powder (like Stevens' "Silicon"); Oleum Flavum Conc., for pomades (colour stable); soluble essence ginger (like Hay's); corn solvent, clear (not acid); liquor copaiiba comp. c. huchu et matico (mixes clear with water); gonorrhoea paste, excellent (Dr. Ricord's); taraxacum and podophyllin (resembles Pepper's); with many others; send stamp for list, stating wants. The toilet preparations are identical with those prepared by a wholesale West-end firm; others equally good; all inexpensive to make; 5s. each (five for 1l.). Readers are cautioned against cheap and worthless imitations. I was first to advertise formule in this journal. "Analyst," care of Mr. Warnes, 6 Rochester Square, N.W. (Note change of address.)

Miscellaneous.

Large number of lantern slides for sale. Apply: Piggott, Chemist, Huddersfield.
Cheap, quantity first-class cigars, in good condition. Chemist, 50 Higher Bridge Street, Bolton.
Some good sets of lantern-slides for disposal; will exchange for anything useful. Piggott Brothers, Leighton Buzzard.
Halse's galvanic battery, twelve silver and zinc cells, cost when new 10l. 10s.; price 4l., or offers. Hagon, Chemist, Cardiff.
A job lot of good square blue, price 40s. per cwt. in ½-cwt. lots; Nichol's blue, 7d. per lb., in ½-cwt. lots, 8d. per lb. smaller quantities. A. Sinclair, Ullesthorpe, Lutterworth.

Surplus stock.—Several barrels extra-refined white paraffin, quite sweet, 7½d. gallon, free on Birmingham rails; 4 lbs. iodide potass., English make, 10s. lb. Beech, Druggist, Ladywood, Birmingham.

Cigar-case (A34 Maw's), 14s.; Avery's weighing-machine, 5 cwt., 2l. 10s.; 52-inch bicycle, roller-bearings, 2l. 15s.; truss (prolapse rectum), 8s. Gant, Raunds, Northamptonshire.

"Enterprise" drug-press, almost new; also student's microscope, three powers, in mahogany case; 2l. for both, or 10s. the press and 30s. the microscope; both good bargains. Address, Singleton, Chemist, Preston.

Bound series Journals from 1853; *Chemist and Druggist* Diary, 1885; 2nd vol. Pereira, 1842; other chemical works; 6 doz. hand-cut sponge, 1s. 6d. to 2s. 6d.; sundries. 65/41.

Twenty or thirty gross hock bottles, at 5s. per gross; 20 gross plain sodas, at 8s.; 20 gross plain splits, at 7s. 6d.; also a number of 3-dozen cases with lids. Mr. Coulsell, Coffee Tavern, Burbage, Buxton, Derbyshire.

Two nests mahogany-fronted drawers, 9 feet and 5 feet; 8-foot mahogany-top counter; several dozen Chemist and Druggist Optical Association spectacles; all in good condition; low price for cash, or saleable patents in exchange. Birkbeck, Chemist, Lincoln.

Microscope, powerful, on brass stand, 30s.; wood leg for showing elastic stocking, 5s. 6d.; printing-machine, prints up to 8 by 6 in. 15s.; complete set of lawn-tennis and net, 20s.; Scott's Waverley novels, 25 volumes, fully illustrated, 60s. W. Nalen, 26 Bissell Street, Birmingham.

Surplus Stock.—Four gross 1½-oz. common vials for 15s.; 3 gross 1-oz. stoppered Lubins, 16s. 6d. gross; 3 cases Craven's vermin-killer, 4s. 9d. each; 13 doz. bent feeders, black fittings, 2s. 3d. doz.; 10 doz. straight flint feeders, black fittings, 2s. 4½d. doz.; 8 doz. ditto, white fittings, 2s. 2d. doz.; 2 2s. 9d. Rowland's Odonto, 1s. 8d. each; 2 gross 1d. oval furniture cream bottles for 4s. 6d.; 400 7-in. circular filtering-paper for 2s., 300 8-in. for 2s., 300 11-in. for 2s. 6d., 200 12-in. for 2s.; 1 gross 3-oz. squat wood-capped pomade bottles, 12s. 6d.; 2 doz. Condy's crimson fluid, 7s. doz. Simecock, 17 Guildford Street, Leeds.

WANTED.

Engine or engine-arm. Dentist, 172 Oxford Road, Manchester.

Useful set of tooth forceps; must be in good condition. Hagon, Chemist, Cardiff.

Apparatus for Limousin's cachets, in good condition. Wilson & Son, Harrogate.

Sponge-case, A43, good condition; state lowest price. Bentley, Chemist, Sheffield.

Drugs, sundries, sheep-dip; send list. Pattinson, Barnard Castle.

Accurate pair warehouse-scales, weighing 1 to 28 lbs. Kemp, Ilkencastle.

Marble mortar, 4-pint capacity, perfect; state price. Gowen, Berkeley, Gloucester.

Foster's "Physiology," good price given for copy of third edition; Cooley's "Practical Receipts." "Student," The Willows, Buxton.

African hair-restorer, bridal bouquet bloom; open to buy soiled or unsaleable patents. Mickle, Chemist, Stanley Road, Liverpool.

Newth's or Wormell's "Natural Philosophy," and Roscoe's "Chemistry," recent and cheap. J. Moyle, 25 Broadway, Hammersmith.

Postage Stamps.—Advertiser will purchase a good collection. H. R., 18 Villa Road, Handsworth, Birmingham.

Copy of Squire's "Pharmacopoeias of the London Hospitals." State lowest price to W. W., 34 Palmerston Road, Southsea.

Chemist and Druggist for January and August, 1880. Apply to W. Hodsdow, 37 St. John Street, West Smithfield, E.C.

Upright counter-case, mahogany, 6 feet 5 inches long, 27 inches high, about 9 inches deep, shelved back, plate glass preferred. Lloyd, Abergel.

Wall-case, all or partly shelved; ditto, glass-fronted, slide-doors preferred, height 102, width 118, depth 11 inches. Cantrell, Chemist, Morley, Leeds.

Attfield's "Chemistry," Bentley's "Botany," Royle's "Materia Medica," Wills' "Pharmacy," recent editions; state price for each or all. Hy. Chaloner, Church Lane, Aston, Birmingham.

Address and Information Wanted.

Marking-ink (the new dragon), prize medal Paris, 1882; address of maker or sole agent. 66/3.

66/15 says:—"Three times I have advertised with you; out of that, twice I sold all, and third time I sold a portion."

ORANGE WINE.

Most suitable for making Quinine Wine because of its containing the least percentage of tannic acid possible, and being in the most brilliant condition. In casks of not less 8 gallons, 4s. per gallon, carriage paid. Extra superior quality (finest made), 4s. 6d. per gallon, carriage paid.

SAMPLES FREE AND CARRIAGE PAID UPON APPLICATION TO

LAMB & WATT, 46 and 48 ST. ANNE STREET, LIVERPOOL.

CASH OR USUAL TRADE

GES REQUIRED WITH OPENING ORDERS.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE AND CO., CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

Immediate attention given to Foreign Commissions.

The Business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade.

VENDORS have the advantage of obtaining an opinion on Value derived from extensive experience, and are in most cases enabled to avoid a infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment.

PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

Particulars of any of the following will be sent free on application:—

1.—LONDON, N.W.—First-class Retail and Dispensing; situate in high-class neighbourhood; handsome shop, good house, and long lease; about £1,000 required.

2.—LONDON, N.E.—Handsome double-fronted Pharmacy for disposal; main road; returns average for last six years over £700; large and convenient house; price £650.

3.—LONDON, W.—Good-class Dispensing and Light Retail; very old-established; returns between £550 and £600 yearly; good house on lease; price £300; vendor retiring is open to an offer.

4.—LONDON, S.W.—Good-class Retail and Dispensing; in an increasing neighbourhood; returns at present £7 weekly; well-fitted shop; all in good condition; valuation only required.

5.—KENT.—Fashionable watering-place; Retail and Dispensing business; returns, 1884, nearly £1,000, increasing; large double-fronted shop; price £700; trial allowed.

6.—SOUTH COAST.—Fashionable sea-side resort; light Retail, Dispensing, and Prescribing; returns nearly £600; good position; rent moderate price £535.

7.—ISLE OF WIGHT.—First-class Retail and Dispensing; very old-established; returns £1,000; 8-roomed house and good laborator; satisfactory terms to be arranged.

8.—NORTH DEVON.—Near the sea, in a very attractive locality; Prescribing and Family Retail Business of good class; returns near £600; good house, low rental; terms, £50, goodwill and valuation stock and fixtures.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application.

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F. J. BRETT,

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CHESHIRE.—Exceptionally good class Country Business, at good profits; returns £850; capable of increase; price £680.

£100.—LANCASHIRE.—Retail and Prescribing, doing £5 to £6 a week as branch; can do £500 with attention; rent £16; price £100; half on security.

LONDON, S.E.—Very profitable Retail; has done £300, and can again; now returns £7 a week; good house and garden; rent £35, worth £50; long lease; price £350.

LONDON.—A bargain; returns £550; good class; price £300.

BIRMINGHAM.—Good-class Retail; returns £730; as vendor has offer of joining large firm will sell at valuation, £400 to £500.

SOUTH COAST.—Dispensing and Light Retail; returns £500; easy rent; price about £450.

LANCASHIRE.—Returns £1,500; some wholesale; at valuation, about £700.

BIRMINGHAM.—Mixed Retail; returns £1,000; at valuation £700.

WEST OF ENGLAND.—First-class Dispensing; returns now at the rate of £1,000; at valuation, £700 to £800.

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36 YEARS' PRACTICAL EXPERIENCE.

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LIVERPOOL SUBURBS.—A good Family, Dispensing, and Prescribing established over 20 years. A good Family and Dispensing, neatly fitted corner shop; nearly all new fittings within the last 4 years; good house, garden, stable, &c., at very low rent.

LIVERPOOL.—Established 70 years, a Dispensing and Prescribing Business; excellent stand, corner shop, house, &c.; to be disposed of at a very low figure; capital opening to a person who can prescribe.

LIVERPOOL.—Well established Family and Dispensing Business; doing a good-class trade, full prices, handsome fittings, increasing locality, large premises at low rent; 4 miles from City.

LIVERPOOL (near the Docks).—Established 30 years; a Prescribing, General Retail, and Shipping Business, to be sold cheap.

LANCASHIRE, Manufacturing Town, a Business established 20 years doing a very profitable trade in Prescribing and Dispensing; a large house, at exceptionally low rent.

SOMERSET.—A General Retail Dispensing and Agricultural Business established over 60 years; large house and premises, garden, stable, warehouse, on easy terms.

SOUTHAMPTON.—An established Dispensing and Prescribing Business improving neighbourhood; commanding position; corner shop; handsomely fitted; favourable terms.

SUFFOLK.—Old-established General Retail and Agricultural Business comfortable house; at low rent; sold at valuation.

A number of Businesses at various prices.

No Commission is charged to Purchasers.

All information on application. To facilitate matters, a reference required on parties applying for the first time.

Lists of Stock for Appraisal receive immediate attention

GRIMWADE, RIDLEY & CO.,

TRADE VALUERS,

ST. CLEMENT'S, IPSWICH,

Have for Transfer the following Businesses—

SUFFOLK.—In a rapidly improving market town in West Suffolk, a capital old-established mixed country business; returns from £1,000 to £1,200; good premises; reasonable rent; incoming about £750.

NORFOLK.—In large watering-place on the East Coast, a capital ready money Retail with Post-office attached; central situation, and capable of considerable extension; returns between £500 and £600; incoming £500.

SUFFOLK.—Mixed country trade in market town; population 7,000; returns over £1,000; incoming £400; rent £42 10s.; satisfactory reasons for disposal.

NORFOLK.—In good country district town with population 5,000, Prescribing and Dispensing Business; returns £500 under branch management; can be considerably increased under direct management; incoming £250.

For Terms and Full Particulars apply as above.

THOS. H. WAITE,

Trade Valuer & Transfer Agent,

BROADWAY HOUSE,
DEALING, LONDON, W.

N.B.—Fees about half what is usually charged.

SCALE OF CHARGES FOR

MISCELLANEOUS ADVERTISEMENTS.

APPRENTICESHIPS.

PARTNERSHIPS.

BUSINESSES WANTED.

BUSINESSES FOR DISPOSAL.

EMPLOYERS WANTING ASSISTANTS.

ADVERTISEMENTS appearing under these Headings are charged at the rate of 4s. 6d. for 7 lines or under, and 6d. extra for every additional line (about 10 words).

ASSISTANTS WANTING SITUATIONS have the liberty of inserting Advertisements of 12 words for 1s.; every additional 3, 4, or 6 words, 6d.

When replies to an Advertisement are to be received at our Office, an extra charge of 6d. will be added, and this will pay for transmitting same.

Remittance must accompany any order for either of the above classes of Advertisement.

BUSINESSES FOR DISPOSAL.

MIXED Business, full stocked, for Sale; owner taking larger concern. For particulars apply, W. E. Giles, Tredegar, Mon.

FOR DISPOSAL, a first-class Retail and Dispensing Business, situated in one of the most fashionable and increasing suburbs of Birmingham. For particulars apply to C. G. Crooke, 270 Moseley Road, Birmingham.

TO BE SOLD, an old-established Business, situated in a Manufacturing town in Lancashire; returns nearly £1,000; post office attached; rent 50. Address, B. P., care of James Woolley & Sons, Manchester.

OLD-ESTABLISHED Light Retail and Prescribing Chemist's Business, in one of the most important seaports in South Wales, for Disposal, in consequence of ill-health; price £350. "Chemists," Merlin Villa, Routh Road, Cardiff.

PHARMACEUTICAL and Druggist Business to be Disposed of, on exceptionally easy terms, in one of the main thoroughfares of North-West London; superior fittings and fixtures; satisfactory reasons for leaving. For further particulars apply, by letter, to A. B., 27 Park Terrace, Shirland Road, W.

A LIGHT Retail, Dispensing, and Prescribing Business; good-class; no heavy; full prices; pleasant locality; changed hands only once in 10 years; returns over £800, increasing; satisfactory reasons for leaving. Address, "Chemists," care of Mr. J. O. Walters, Hop Merchant, Shrewsbury.

A WIDOW LADY wishes to Dispose of an old-established Mixed Drug Business through retiring from business; a very profitable, ready-money concern; in a populous and rapidly increasing neighbourhood near the docks; returns nearly £1,000; cash price £500; rent £60. Apply to Mrs. E. Morgan, 111 Commercial Road, Newport (Mon).

PARTNERSHIP OR SALE.—Old-established Druggist and Wholesale and Retail Spirit and Wine Business, in a large town in South Wales; coming in for partnership about £1,000; none but principals treated with, apply, by letter, to Messrs. Hodgkinson, Prestons & King, 81 Bishopsgate Street Without, London, E.C.

LONDON SUBURBS.—Light Retail, Dispensing, and Family Business, situated in good-class neighbourhood, returning £700 yearly, and showing good profits; handsome corner shop, well fitted and stocked; house large and convenient; the business will bear the closest investigation, and from a bona-fide purchaser liberal terms would be accepted. E. Maiden, 92 Midway Grove, London, N.

FOR immediate Disposal, a Genuine Concern, established 21 years by vendor, who is retiring from business; shop well stocked and fitted, centrally situated, adjacent to tramway terminus and centre of South Staffordshire system of tramways; good house, side entrance, coachhouse and stabling, warehouse, spacious yard, with lock-up gates; returns £900 per annum; rent £80; price £500, or stock and fixtures at a valuation. Apply, F. E., care of Messrs. Wyleys & Co., Coventry.

MESSEURS EDMUNDS & CO. (late Taylor & Co.), have for transfer: SUFFOLK.—Mixed trade; returns £1,200; good house; rent £50; price £750, or valuation. ESSEX.—In rapidly rising watering-place; recently established high-class trade; returns £300. SUFFOLK.—Returns near £400; rent £30; valuation stock and fixtures. LONDON, N.—Retail and Dispensing; average returns £900; rent £60; for £250. Another, returns £700, for £600. MIDDLESEX.—Returns £800; for £400; rent only £30. LONDON, S.W.—Retail and Prescribing; returns £10 a week; for £300. LONDON, S.E.—Returns £8 a week; rent £40; good house; price £280; a bargain. LONDON, N.W.—Returns £4 a week; for £80. SOMERSET.—Profitable Drug and Stationery Business; returns near £1,300; rent £52; for £1,100. Walbrook Chambers, 38 Walbrook, City.

BUSINESSES WANTED.

A FIRST-CLASS Dispensing or Mixed Business; returning not less than £2,000 or £3,000 per annum; must bear the strictest investigation. Apply, with full particulars, in confidence, to Mr. Heslop, Kingswinford, Dudley.

SEA-SIDE Business; South Coast preferred; a sound Retail and Dispensing Business in a good sea-side town; a partnership would be entertained; state returns, rent, price, and house accommodation, in strict confidence. Mr. Bennett, 49 Queen's Road, Wimbledon.

TO LET.

TO LET, at Southsea, a capital Shop, well adapted for a chemist, and much required in a fast-improving main thoroughfare of that town; rent low. Inquire, 25 Green Road, Southsea.

EMPLOYERS WANTING ASSISTANTS.

CHEMISTS AND DRUGGISTS' GLASS SUNDRIES.—Young Man wanted, for order department and sample-room work; must be thoroughly acquainted with the trade. Apply, by letter, stating age, experience, and salary required, to Manager, care of Love Brothers, 99 Fore Street, City.

WHOLESALE.—Wanted, at once, a Second Assistant at the wet counter; preference will be given to one accustomed to the Wholesale. Applications, with references, stating salary required, to be sent to X. Y. Z., Clay, Dod & Co., 52 St. Anne Street, Liverpool.

TO WHOLESALE AND MANUFACTURING CHEMISTS' ASSISTANTS.—FOR INDIA.—Wanted, immediately, in a first-class firm, a competent Man; well up and experienced in Laboratory work; good dispenser with Minor qualification; age between 25 and 30; must possess unexceptional personal references; 3 years' engagement; liberal terms. Write "India," care Pottle & Son, Royal Exchange, London, E.C.

ASSISTANTS WANTING SITUATIONS.

MR. S. SMITH, Registered Chemist, 76 Devonshire Street, Bridgwater, takes occasional confidential charge during absence or illness.

TRAVELLER; Scotchman, aged 21; 3½ years at Retail, Dispensing, and Laboratory work. "Alpha," Mr. Elliot, 17 Princes Street, Edinburgh.

PART-TIME Situation, in London, wanted. W. H. Davis, St. Vincent's, Malvern.

A ASSISTANT; Town or Country; varied experience; aged 26; height 5 feet 9 inches. P. G., 14 St. Paul's Road, Kennington Park, S.E.

DISPENSER, or to Manage Branch; can prescribe and extract teeth; good experience; disengaged. "Alpha," 5 Artist Street, Higher Broughton, Manchester.

A LOCUM TENENS, or Temporary Manager; qualified; thoroughly competent; disengaged. "Associate," care of Mr. Maddox, 15 St. Swithin's Lane, E.C.

A S MANAGER or Assistant; 16 years' experience; aged 32, single; height 5½ feet; qualified; disengaged. W. Harrison, Godney, near Holbeach, Lincolnshire.

TRAVELLER, with excellent connection, 15 years', Midlands, West, and Wales, in Drugs and Sundries, seeks re-engagement. T., 10 Camden Road, London, N.W.

AS JUNIOR or Improver, in a good-class business; 3½ years' experience; aged 22; height 5 feet 10½ inches; disengaged. D. L. Lewis, 9 Thanet Place, Temple Bar, W.C.

AT A MANUFACTURING WHOLESALE CHEMIST'S (laboratory preferred), by a Youth; aged 18; has had some experience. H. A., 55 Maddox Street, Boud Street, London, W.

APPRENTICESHIPS.

WANTED, for a Light Retail Mixed Country Business, a well-educated Youth as Indoor Apprentice; one who has passed preliminary examination preferred; comfortable home; terms moderate; no objection to treat with an Improver, or one who has served part time. E. Jenkinson, Chemist, &c., Lindfield, Sussex.

MISCELLANEOUS.

IRELAND.—Agencies and Commissions.—Advertiser, having large connection with Chemists, Grocers, Ironmongers, &c., desires Agencies or Commissions for articles connected with above trades. Address, Mr. Holmes, Commission Agent, Offices, 19 Denzille Street, Dublin.

A CELEBRATED Manufactory of Artificial Pumice-stone desires to be Represented by a responsible firm in London. Offers, with first-class references, to be addressed to T. P. 465, care of Haenstein & Voglen, Prague, Bohemia.

COURT PLASTER

SPREAD on Silk, and suitable for sale in pennyworths, per post, 2s. 6d. per yard, 16 inches broad. **ARCHIBALD PATERSON**, Chemist, 183 Govan Road, Glasgow.

GOOD OPENING FOR ENTERPRISE.

SOLE AGENT WANTED, to introduce into the United Kingdom a few well-known Indian Domestic and Veterinary Remedies, including an Ointment, Neuralgia and Cholera Cure, Tonic, and Cattle Ointment; liberal terms; correspondence invited; references required and given. T. Sammi, Gooty, Madras, India.

IMPORTANT TO CHEMISTS. PHOSPHORINE ELIXIR.

HAVING been repeatedly asked for a recipe of a really good "Nerve Tonic," I have obtained, after much labour and great expense, one that will be certain to give satisfaction.

"Phosphorine Elixir" contains phosphorus in the free state, combined with other nerve-bracing and life-giving properties. Its appearance is elegant, taste pleasant, action rapid, not followed by unpleasant eruptions of the stomach; no difficulty in preparing, and not liable to decomposition; it is, in fact, both in appearance and action, "all that can be desired."

Chemists wishing to introduce a profitable and reliable proprietary will find this most suitable.

On account of expense in obtaining this recipe, I am compelled to charge 5s., with every particular for manufacture. My detailed printed list of 280 recipes at 1s. 1d. each, or 6 for 5s., I shall be glad to post free to any chemist at home or abroad.

See Exchange Column in this Journal these last four years.

Terms, satisfaction guaranteed.

T. BROOKS, Chemist, Louth, Lincolnshire.

NOTE! DRUGGISTS' SUNDRY BARGAINS.

BENT feeding-bottles, black fittings, 28/ gross. Indiarubber black tubing 8/6 lb. Back indiarubber teats, 5/6 gross. Superior medical bottles, plain or grad., in flats or ovals, 3 oz., 6/6; 4 oz., 6/6; 5 oz., 7/6; 8 oz., 7/6; 10 oz., 10/9; 12 oz., 11/; 16 oz., 14/6 per gross. Superior white flint vials, 1 and 2 drachm, 3/; ½ oz., 3/3; 1 oz., 3/4; 1½ oz., 4/6; 2 oz., 5/3 gross. 2 oz. futed pomade bottles, 6/ gross. 1 oz. upright gally-pots, 4/ gross. Blue earthenware shop jars, ½ lb., 5/6; 1 lb., 7/6; 2 lb., 14/; 3 lb., 22/; 4 lb., 30/ dozen. Gold paper labels, assorted sizes, for shop-bottles, &c., 2/10 dozen. Higginson's enemas, 27/ per dozen. American enemas, 18/ dozen. Pill boxes, 1 drachm, 4/; 2 drachm, 5/ gross. Sedlitz demy, 7/9 ream. White demy, 4/ ream. Thick or thin wax tapers, 1/ per lb. Verified glass measures, 1 oz., 7/; 2 oz., 8/6; 4 oz., 11/; 10 oz., 14/; 20 oz., 19/; 2 drachm, 8/6 dozen. 1d. fuller's-earth, 4/ gross. Gutta-percha tissue, 6/ lb. 5-grain 24-pill machines, 16/6 each. French counter-scales, 2 lb., 13/6; 4 lb., 16/6; 10 lb., 22/ pair. Best circular-jointed tooth-forceps, all kinds, 4/3 pair; nickel-plated ditto, 5/ pair. French extracts in 1 lb original tins, 8/6 each. Good value in wash-leathers, per dozen, 3/6, 5/7, 9/6. Superior thread elastic stockings, per pair 4/6. Vaccination shields, 2/ dozen. Hunt's bottle caps, assorted, 10/2 gross. Transparent glycerine soap, 7/6 lb. Good vial-corks, 4, 6, 8 per gross. Chemists' assorted coloured twine, 8/3, 10/3, 1/ per lb. Soft loose corns, capsules, 8/ per 1,000; 1/ oval boxes ditto, 4/9 dozen. Cork-pressers, 9 each. 2 oz. congb-mixture bottles, Kaye's patent, 7/ gross. Small boxwood cork Preston salts, 15/ gross.

SIMCOCK, Druggists' Sundryman, 17 Guildford Street, LEEDS.

THOMAS BARBER, DECEASED.

Pursuant to Statute 22 & 23 Vic., c. 35

NOTICE is hereby given, that all creditors and other persons having any DEBTS, CLAIMS, or DEMANDS against the ESTATE of THOMAS BARBER, late of No. 29 The Canal, in the City Salisbury, Chemist and Druggist, deceased (who died on the 10th day November, 1884, and whose will was proved on the 20th day of February 1885), who have not already sent in particulars thereof to me (the undersigned), are hereby required to do so on or before the 25th day of March 1885, after which day I shall proceed to distribute the assets of the said deceased among the persons entitled thereto, having regard only to debts, claims, and demands of which I shall then have had notice.

Dated this 25th day of February, 1885.

CLEMENTEA MARIA BARBER,

Executrix of the said Thomas Barber, deceased
High Street, Salisbury.

W. S. YATES,

Chemists' Shop Fitter, Shop Front Builder, and
Glass Show Case Maker.

DENTIST CASES.

Plans and Estimates supplied for Work in any part of the Kingdom.

9 CAMDEN STREET, LIVERPOOL.

See July issue of THE CHEMIST AND DRUGGIST for List of Shops Fitted by W. S. Yates.

SUGAR COATED PILLS

R. HAMPSON prepares the Pills of the Pharmacopoeia, and a great variety of Pills from convenient formulæ; also Pills from private formulæ. The Pills are made of the best ingredients, and being quick and perfectly diffusible, invariably give satisfaction. A Price Current, with formulæ and sample, post free. Supplied direct or through the Wholesale Houses. Special quotations for large quantities.

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RANDALL'S BLACK CURRANT LOZENGES.

	Net Cash.	To Acc.
Plain Black Currant, old square ..	2 6	2 6
" " " rough oval ..	2 6	2 6
Black Currant and Ipecacuanha ..	2 6	2 6
Black Currant and Tannin..	3 0	3 0
Black Currant Voice (warm astringent) ..	3 0	3 0
Black Currant Cough Lozenges *	3 6	3 10

(* Ipecac. and Morph., strength as "B. P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

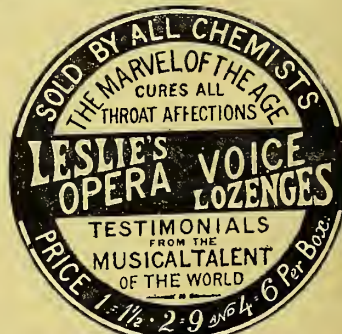
RANDALL & SON, Southampton,

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2s., 2s. 2d.; 7 lbs. stamped with name free and MUSK LOZENGES (Special), 2s. 6d., 2s. 8d.

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopoeia of the Hospital for Diseases of the Throat, London.



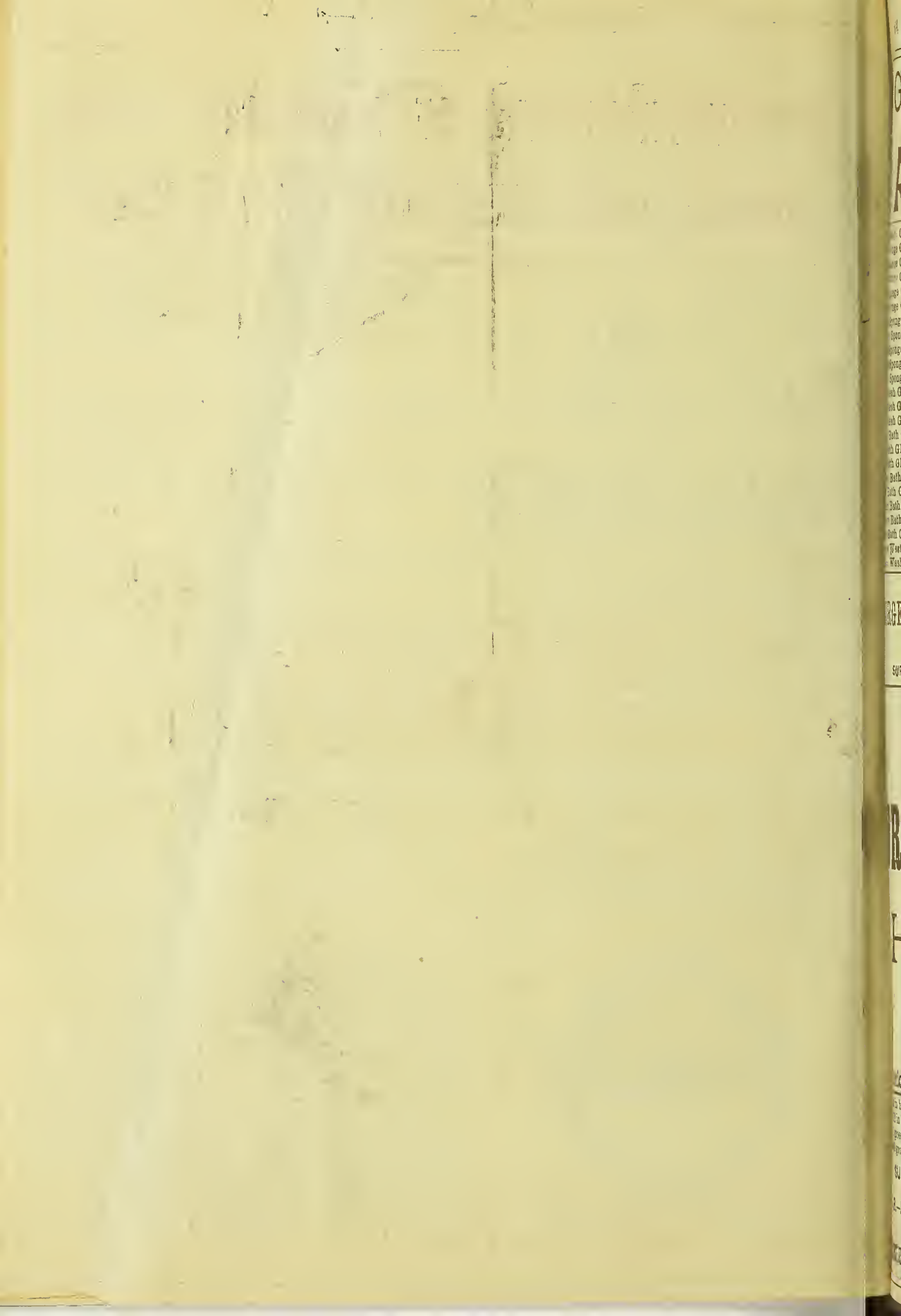
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27 KING WILLIAM ST., STRAND, LONDON, W.C.

**TO MANUFACTURERS OF DRUGGISTS' GOODS,
SUNDRIES, AND SPECIALITIES OF ALL KINDS.**

SPECIAL COPIES of "THE CHEMIST AND DRUGGIST," for MARCH 15, will be sent to ALL EXPORT MERCHANT SHIPPERS of such Goods in the United Kingdom not already Subscribers. It will be filed for reference by nearly everyone who receives it, and affords a capital opportunity for commencing a series of Advertisements.

42 CANNON STREET, LONDON, E.C.



GEORGE PATTISON'S LIST OF BATH GLOVES.

roo Sponge Gloves, No. 1..	.. ..	(best white. Retail 6d.)..	.. ..	4/0 per dozen pair.
roo Sponge Gloves, No. 2..	.. ..	(best white, large, with red binding) ..	.. ..	4/8 "
roo Sponge Gloves, No. 3 C quality	.. ..	(thin white) ..	.. ..	3/0 "
roo Sponge Gloves, No. 4 C quality	.. ..	(thin white, large, with red binding) ..	.. ..	4/0 "
den Sponge Gloves, No. 1	.. ..	or Turkish (best white, extra stout quality, large) ..	.. ..	5/0 "
den Sponge Gloves, No. 2	.. ..	or Turkish (best white, extra stout quality, medium and small)	.. ..	4/6 "
ental Sponge Gloves	.. ..	(very superior stout white, with red stripes)	.. ..	6/8 "
opatra Sponge Gloves	.. ..	(fine quality, white with red stripes) ..	.. ..	5/0 "
rman Sponge Gloves..	.. ..	(cream or unbleached white, soft and spongy)	.. ..	5/0 "
press Sponge Gloves	.. ..	(crisp white, with fancy stripes)	.. ..	5/0 "
narch Sponge Gloves	.. ..	(drab, with fancy border, very absorbent) ..	.. ..	6/0 "
den Flesh Gloves, or Calefacio No. 1	.. ..	(best soft brown—friction) ..	.. ..	6/0 "
den Flesh Gloves, or Calefacio No. 2	.. ..	(hard brown—friction) ..	.. ..	6/0 "
den Flesh Gloves, C quality	.. ..	(soft brown—friction) ..	.. ..	5/4 "
ragon Bath Gloves	.. ..	(soft brown, with red and white stripes) ..	.. ..	6/3 "
ion Bath Gloves, No. 1	.. ..	(one side stout white, and the other side best soft brown)	.. ..	7/0 "
ion Bath Gloves, No. 2	.. ..	(one side white honeycomb, and the other side hard brown)	.. ..	7/0 "
ighton Bath Gloves	.. ..	(white honeycomb) ..	.. ..	5/0 "
oman Bath Gloves	.. ..	(cream or unbleached white, stout elastic honeycomb)	.. ..	6/0 "
oman Bath Gloves	.. ..	(fancy brown and white—friction) ..	.. ..	6/8 "
terion Bath Gloves	.. ..	(fancy brown and white) ..	.. ..	6/8 "
bany Bath Gloves	.. ..	(fancy white linen) ..	.. ..	6/8 "
ness Washing Gloves	(fancy pink and white honeycomb)	4/0 "
ness Washing Gloves	(fancy pink and white honeycomb, large)	5/0 "

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GEORGE PATTISON, 139 ST. JOHN STREET ROAD, LONDON, E.C.
 SOLE PROPRIETOR OF THE "LUNG PROTECTOR" (REGISTERED).
 SUPPLIED BY ALL WHOLESALE HOUSES, SUBJECT TO THEIR USUAL TERMS.

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ARNICATED
 WHITE FELT
CORN AND BUNION PLASTERS.
 INVENTED AND ESTABLISHED BY
HENRY YOUNG,
 A.D. 1846,
 AND FAVOURABLY KNOWN ALL OVER THE GLOBE.

PRICES—			
Arnicated White Felt Corn Plasters.		Arnicated White Felt Bunion Plasters.	
Thin, 12 in box (round 6d. boxes) ...	2/4 per doz. boxes.	Small Thin, 6 in box (round 6d. boxes) ...	2/4 per doz. boxes.
Thick, 12 in box (original 1s. fancy boxes) ...	3/4 "	Thick, 6 in box (original 1s. fancy boxes) ...	3/8 "
Thin, 1 gross in box ...	1/10 per gross.	Large Thin, 1/2 gross in box ...	4/6 per gross.
Thick, 1 gross in glass-top box ...	3/0 "	Thick, 1/2 gross in glass-top box ...	6/0 "
SUBJECT TO THE DISCOUNTS ALLOWED BY WHOLESALE HOUSES.			
.B.—Please see that <u>YOUNG'S</u> Goods are supplied, as there are many worthless Imitations.			
Manufactory, 72 Clerkenwell Road, London, E.C. (late of CARTHUSIAN STREET).			

SILVER MEDAL Awarded at the INTERNATIONAL HEALTH EXHIBITION.

SPONGES.

R. CRESSWELL & CO.,

SPONGE IMPORTERS & MERCHANTS

32 Red Lion Square, London;

AND AT PIRÆUS AND SMYRNA

ESTABLISHED 1850.

PRIZE MEDALS AWARDED:



SPONGES OF EVERY KIND AND DESCRIPTION BY THE CASE, PIECE,
OR WEIGHT, SANDLESS OR IN SAND, OR ON STRINGS,
CARDS, AND BLUE CARD BOXES.

IMPORTANT NOTICE.

The value, quality, and style of R. C. & Co.'s Sponges being so vastly superior, in all respects, to those currently offered, it is to the interest of all Buyers that it should be clearly stated that theirs are the Sponges required, and NOT IMITATIONS. All indents should, therefore, specify that R. C. & Co.'s Sponges must be sent, in order that all loss and inconvenience may be avoided, they having received just and serious complaints from correspondents abroad, whose intentions in this respect are not always carried out.

Messrs. R. C. & Co. beg further strongly to call attention to the fact that, owing to the success attained by them in the preparation of Sponges for the market—the result of 35 years' researches and experience—dealers are offering goods purporting to be the same as R. C. & Co.'s, but which are dyed with deleterious compounds, in no way comparable to theirs, AND ARE VERY CONSIDERABLY DEARER.

FULL PRICE LIST FREE ON APPLICATION.

ALL COMMUNICATIONS TO BE ADDRESSED TO LONDON OFFICES.

SPONGES—SEASON 1885.

IN CASES, $\frac{1}{2}$ CASES, $\frac{1}{4}$ CASES.

A GUARANTEED NUMBER IN EACH.

NO.	DESCRIPTION.	Pieces per Case.	Price per Case.	Price per $\frac{1}{2}$ Case.	Price per $\frac{1}{4}$ Case.
HONEYCOMB.					
1	SELECTED QUALITY... .. Assorted Sizes ...	100	18 17 6	9 9 6	4 15 0
2	FINE " " ...	100	15 8 0	7 14 6	3 18 0
3	SECOND " " ...	100	12 14 0	6 7 6	3 4 6
4	THIRD " " ...	100	10 2 0	5 1 6	2 11 0
5	ROUGH, FOR STABLE USE " ...	100	7 17 6	3 19 0	2 0 0
6	" " ... Smaller Assorted Sizes	100	5 6 0	2 13 6	.....
7	SELECTED QUALITY Medium Bath Sizes	26	8 18 0	4 10 0	.....
8	GOOD " " "	26	6 3 0	3 2 0	.....
9	SELECTED " Large " "	18	8 8 0	4 5 0	.....
10	GOOD " " "	18	5 12 0	2 17 0	.....
11	FIRST " Small	200	5 7 0	2 14 0	.....
12	SECOND " "	200	3 10 0	1 16 0	.....
TURKEY.					
13	CUPS, FIRST QUALITY Bath Sizes ...	40	19 0 0	9 11 0	.....
14	" SECOND " " " ...	40	13 14 6	6 18 0	.....
15	" FIRST " Toilet " ...	100	34 5 0	17 3 6	8 12 6
16	" GOOD " " " ...	100	25 10 0	12 16 0	6 8 6
17	" SECOND " " " ...	100	18 10 0	9 6 0	4 13 6
18	" USEFUL PIECES " " ...	100	13 5 0	6 13 6	3 7 0
19	" FIRST QUALITY Nursery Sizes ...	200	15 17 0	7 19 6	4 0 0
20	" SECOND " " " ...	200	10 10 0	5 6 0	2 13 6
21	SOLID, FIRST " Toilet " ...	200	23 14 0	11 18 0	5 9 6
22	" SECOND " " " ...	200	15 16 0	7 19 0	3 15 0
23	" FIRST " Nursery " ...	200	13 5 0	6 13 6	3 7 6
24	" SECOND " " " ...	200	7 18 0	3 19 6	2 0 0
25	BROWN, FINE " Assorted " ...	150	7 18 0	3 19 6	2 0 0
26	" SECOND " " " ...	200	5 18 0	3 0 0	1 11 0

S. MAW, SON & THOMPSON have just received their Spring Stock of
SPONGES, which they can confidently recommend to the attention
of the Trade.

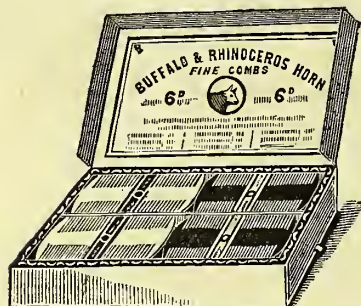
1885.

S. MAW, SON & THOMPSON, LONDON.

TRADE MARKS—BULL AND BULL'S HEAD.

S. R. STEWART & CO.,

ABERDEEN COMB WORKS, ABERDEEN.



TRADE MARK.



AWARDED THE ONLY FIRST PRIZE MEDALS at London, 1862; Vienna, 1873; Paris, 1878; Sydney, 1879; Melbourne, 1880; Adelaide, 1881; Amsterdam, 1883; Calcutta, 1884, for

COMBS.

Real and Imitation Tortoiseshell, Buffalo, Rhinoceros, and pure White Horn.

DRUGGISTS' SCOOPS & SPOONS, FRUIT KNIVES, PAPER-CUTTERS,

AND ALL OTHER HORN GOODS. THE TRADE ONLY SUPPLIED.

BRANCHES—126 Queen Victoria Street, LONDON, E.C., & 14 Carr's Lane, BIRMINGHAM.

USEFUL AND NOVEL PRESENTS



ASHWORTH'S NEW PATENT "METALLIC COMB-BRUSH."

USEFUL AND NOVEL PRESENTS!!
SET WITH FINE STEEL WIRES AND ENCLOSED WITH BRISTLES. These brushes are delightfully cool to the head, producing a most agreeable sensation, and will penetrate the most luxuriant hair without injury. They are altogether machine-made; the black handles are covered with a coating of Japan burnt on and then polished. These handles are also in solid pieces, and hence will not fall apart as in the case of brush handles covered with veneer. The latter brush shows a most remarkable development in metallic brush making. It is made of fine hard drawn steel wires, about the thickness of ordinary bristles. This penetrates, SMOOTHS, and FIXES THE HAIR. It is, to express the words of a user, "Simply perfection as a hair brush, and must, when known, take the place of the bristle brush for toilet uses." Send for a SAMPLE BY POST AND TRY IT.

Prices of Metallic Comb-Brush, post free.

Ladies' and Gentlemen's Black Japan.....	1/6, 1/9, 2/0
" " Lionite-figured.....	1/9, 2/0, 2/3
Gentlemen's Black Japan, Military Style.....	1/6, 2/0
Dog, Cattle, and Horse Brushes.....	2/0, 2/6, 3/0
New Patent Fine Steel Comb-brush with or without bristles, post free.	
Ladies' and Gentlemen's Black Japan.....	1/9, 2/0, 2/3
" " Ivory-coated.....	2/0, 2/3, 2/6
Gentlemen's Black Japan, Military Style in fine steel only, without bristles.....	2/3, 2/6

These brushes are now enclosed with bristles in order to give them a more finished appearance. They can, however, be had without the bristles, but all orders for the former must quote the letter "B" following the number of brush required, as "Fine Steel Black Japan No. 8 B," or "No. 9 B," &c.

All Goods are forwarded safely packed in Neat Boxes.

ASHWORTH BROS. MOSS BROS. WORKS,
COLLYHURST, MANCHESTER, ENGLAND.

CHEMISTS, &c., SHOULD STOCK AND PUSH

REGISTERED.



The only Tooth Brush to thoroughly Cleanse the Teeth.

SAMPLE BRUSHES FREE FOR 9d. or 6d. IN STAMPS.

LADIES' and GENTS', 90s. per gross; CHILDREN'S, 54s.

Each size packed, assorted cuts and textures, in 1 doz. boxes.

15 per cent. Discount—Cash with Order.

G. SALTER, Corn Exchange Passage, BIRMINGHAM.

OKELL'S ORIGINAL MONA BOUQUET

Retail, 1/1, 1/9, and 3/6; Wholesale, 9/15, and 30 per doz.

This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Applications for WHOLESALE Agencies to be made to the Sole CONSIGNER, THOMAS WEST, Chemist, 61 Chester Road, Stretford, Lancashire.

CHUBB'S Post SEIDLITZ POWDERS

—Full Weight—Loose, at 7s. per gross; in lift-off boxes, 7s. 6d. and in hinged boxes, 8s. 6d., per dozen.

CHUBB'S Extra VIOLET POWDER

(WARRANTED PURE STARCH POWDER),

In 1d. Boxes, 6s. gross, and 2d. Boxes, 11s. gross, and in 1/4-lb. and 1/2-lb. Packets, 10d. per lb.

CHUBB'S Pre- pared FULLER'S EARTH

In 1d. Boxes, 5s. gross, and 2d. Boxes, 9s. gross, and in 3d. and 6d. ROUND Boxes, 1s. 6d. and 2s. 6d. dozen.

SUBJECT TO 15 PER CENT. DISCOUNT FOR CASH.

May be obtained through all the Wholesale Houses, or direct from

CHUBB & CO., 29 OLD ST., LONDON, E.C.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.



G. B. KENT & SONS, LONDON. BRUSHES.

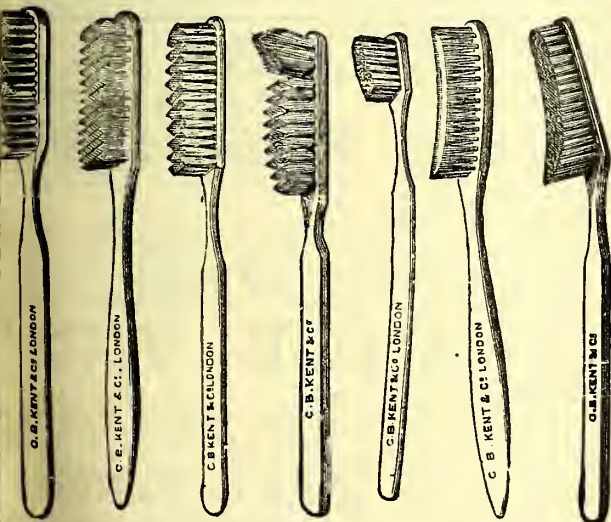
Offices: 11 Great Marlborough St., London, W. Factories: 46 Bonner Road, London, E.

CALCUTTA EXHIBITION, 1884, GOLD MEDAL.



KENT'S TOOTH BRUSHES.

N.B.—Special Factories at Victoria Park are set apart for this one description of Brush.



THE NOVELTY TOOTH BRUSH.
TRIPLE CEMENTED AND EXTRA SECURE.
Depôt for America: 91 Fulton Street, NEW YORK.

			Price per doz.
First Quality	G.B. Kent & Co	London	6/6
Second Quality	Imperial	Quality	5/0
Third Quality	WARRANTED	LONDON	4/0
Fourth Quality	WARRANTED	SECURE	2/6
Fifth Quality	WARRANTED	SOUND	5/0
Badger Hair Tooth Brushes	..	4/6 6/0 8/6 11/0	per doz
Children's "	..	3/0 3/6 4/0	"
Tooth Brush Guards	..	Metal, 6/6 7/6 8/6	"
Japanned Wet Brush Holders	..	3/6 5/6 6/6 13/0	"

KENT'S NAIL BRUSHES.



SPONGES.—At 11 Great Marlborough Street is a Sponge Room worth the inspection of the Trade.
G. B. Kent & Sons' Illustrated Catalogue, containing 700 woodcuts, will be forwarded free on application.

S. MAW, SON & THOMPSON

Beg to inform the Trade that they have now in stock a large assortment of

EGYPTIAN

LOOFAS

OF EXCEPTIONALLY GOOD QUALITY.

From 7s. to 12s. per dozen, according to size.

S. MAW, SON & THOMPSON, LONDON.

FRICTION.

THE MOST PLEASANT MODE OF APPLYING IT TO SKIN IS BY THE **PANSTREPTON (or All-Pliant) FLESH BRUSH.**

The best Article ever introduced for the purpose.

PRICES FROM 22/ to 36/ per doz.

Of all WHOLESALE HOUSES or of the SOLE MANUFACTURER,
R. CONDRON, 2 BINGFIELD STREET, LONDON, N.

ROBINSON'S ORANGE WINE

(VIN. AURANTII, B.P.)

Specially prepared for Quinine Wine, does not deposit, will keep good in any Climate, and well adapted for Export trade.
Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

THE UNIVERSAL CORN AND WART PENCIL

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.
N.B.—The above is exempt from Stamp Duty by permission of the Board of Inland Revenue.

CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Dislled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by the use of a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Use in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopœia.



Per lb.	Per lb.	Per lb.	Per lb.
Aqua Anethi, Concent. 4/0	Aqua Cinnam. Ver. Concent. 6/0	Aqua Fœniculi, Concent. 4/0	Aqua Pimentæ, Concent. 4/0
" Anisi, " 4/0	" Cassia, " 4/0	" Menth. Pip. " 4/0	" Rosæ " 8/6
" Camphoræ " 4/0	" Flor. Aurant. " 8/6	" Aug. Con. 6/0	" Rosæ Virginæ " 10/6
" Carui " 4/0	" Flor. Sambuci " 8/6	" Virid. " 4/0	

The above are put up in Bottles of ½ lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label on cork.
Wholesale Agents—Hearou & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Son & Co., Liverpool; Woolley, Manchester; Bewley & Draper, Hunt & Co., Dublin; Glasgow Apothecaries' Co., Hattrick & Co., Glasgow; J. Mackay & Co., T. & H. Smith & Co., Edinburgh; Foggitt, Thirsk; Goodall & Co., Leeds; J. Richardson & Co., Leicester; Slinger & Son, York; McKessou & Robbins, New York. Special terms for large quantities may be had from

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

COATE & CO.,

THE LONDON BRUSH WORKS,
AXMINSTER, ENGLAND,

IN publishing their present Price Current, tender their best thanks for the favours received for a period of thirty-seven years,

During which time, by the patterns registered and processes patented, namely, the White Enamelled Cement, the Machinery applied, the New Machines invented, &c., they believe they have taken the lead in improving the Manufacture of Tooth Brushes more than all the other Tooth Brush makers in the world put together, whose main efforts seem to have been that of trying to imitate the style and patterns of COATE & Co., but with very imperfect success as yet.

For, as a true test of the superiority of their manufacture, COATE & Co. can say that at the present moment their customers are now supplying most of the crowned heads, princes, and nobles of Europe with Tooth Brushes made by COATE & Co.

Such being our present position in this branch of manufacture, we beg to assure our friends and customers that no efforts will be spared to hold our position and merit their continued support and approval.

We trust and think that the life-size Illustrations now issued will greatly assist our customers at the retail counter, and facilitate orders per letter at home and abroad.

The drawings of each pattern signify actual size and shape, not hardness, except the patterns G H (Goat Hair), V S (Very Soft), V H (Very Hard), for Yellow or Unbleached Hair, and B H (Badger Hair). All the other patterns are made and sent out in Soft, Medium, and Hard, assorted, unless ordered to the contrary.

If best Tooth Brushes are ordered by the gross assorted, with a remark as to hardness, preferable or objectionable patterns, a better and more saleable variety can be had than if ordered by one or two dozen per No. Observe, no Sponge Brushes, Palate Brushes, Very Soft or Very Hard, would be sent unless specially ordered to be sent in such gross, and customers who order Assorted patterns can rely on having a nice assortment sent at once; but, when ordered by pattern, more time may be required, for although COATE & Co. held in stock on January 1, 1885, nearly three thousand gross of Tooth, Hair, and Nail Brushes, made and partly made, yet the variety of Patterns, Qualities, and Hardness is so great that they cannot at all times keep up a large quantity of each Sort, Pattern, or Hardness.

THE FOLLOWING ARE A FEW OF THE PRICES OF OUR MERCHANTABLE TOOTH BRUSHES:—

	Per doz.		Per doz.
Common Cemented	2/	Cemented, Superfine, stamped with Elephant ..	5/
Stamped	2 6	Warranted Best, stamped with Royal Arms ..	5 6
" London	3/	Warranted Best Hair, stamped with Trade Mark ..	6/
" Improved	3 6	Extr Best, stamped with Trade Mark and "Coate	
" Warranted	4/	& Co.," London	6 6
" Warranted Extra	4 6		

Late of 41 LISLE STREET, LONDON.

ILLUSTRATED PRICE LIST SENT FREE ON APPLICATION WITH BUSINESS CARD.

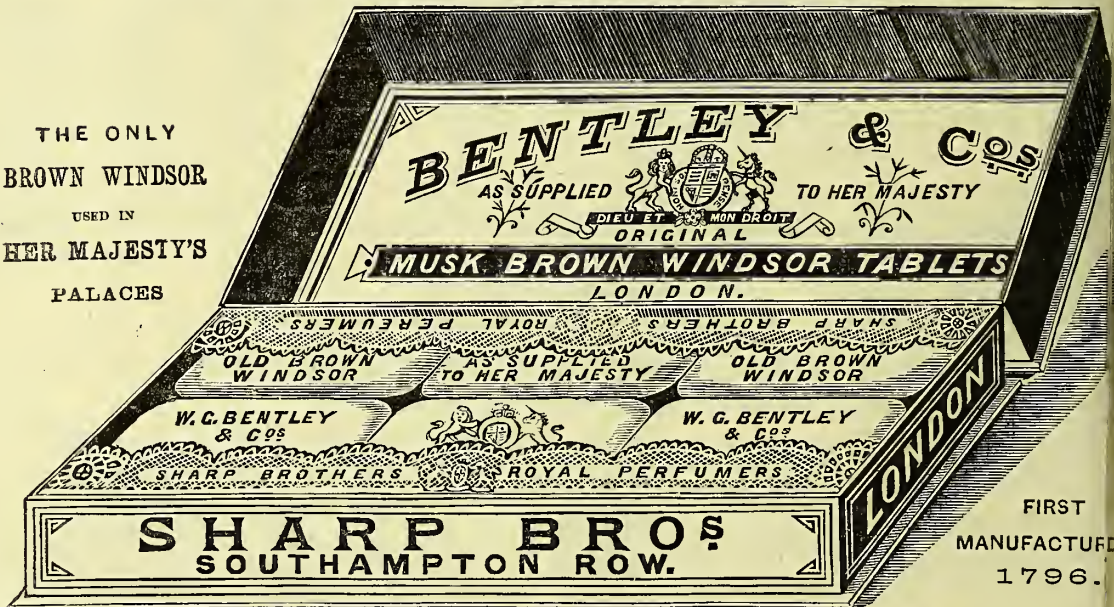
3.—A Large Stock of Finished TOOTH BRUSHES, HAIR BRUSHES, &c., kept ready for Merchants' Shipping Orders.

SPECIAL NOTICE

TO SHIPPERS, WHOLESALE DEALERS, AND THE TRADE.

SPECIALITIES WORTH ATTENTION.

THE ONLY
BROWN WINDSOR
USED IN
HER MAJESTY'S
PALACES



FIRST
MANUFACTURED
1796.

SOLD IN BOXES CONTAINING SIX SMALL TABLETS OR
THREE LARGE, 1/8 each; 12s. per Dozen Boxes.

DUCHESS MARIE BOUQUET

ADELINA PATTI'S FAVORITE PERFUME.

2s. 6d., 3s. 6d., 5s. and 10s. 6d. per Bottle; 20s., 28s., 40s., 80s. per Dozen.

London
 116, Chancery Lane, Bedford Row, E.C.
 To Messrs Sharp Brothers
 July 4, 1882.

I have much pleasure in certifying that "Bentley's famed musk-scented Old Brown Windsor Soap" supplied solely by me to Buckingham Palace, was the one selected for the use of Her Majesty and the Royal Family. Its fragrant and delicate perfume combined with its valuable excellent qualities have ensured the approbation and constant use of Her Majesty and her Court.

John Reddard,
 Master of the Household,
 Chamberlain to the Queen

Regent's Lodge
 King's Road
 Tottenham, 18 June 15, 1882

Gentlemen,

I beg to thank you for the sample bottle of "Duchesse Marie." I shall feel much obliged if you will send me a case of a dozen bottles, as I like it very much.

Yours faithfully,
 Adeline Patti

Messrs Sharp Bros.,
 12 Southampton Row,
 High Holborn, London



PRICE LIST ON APPLICATION.

SHARP BROS., 12 SOUTHAMPTON ROW, LONDON, W.C.

THE CROWN PERFUMERY CO.,**177 New Bond St., London,**

TRADE MARK. Beg to draw the attention of Chemists, Druggists, and Perfumery Dealers to their Fine Perfumes and Fancy Soaps, for the excellent quality of which

SEVEN PRIZE MEDALS HAVE BEEN AWARDED.*Concentrated Essences of Great Fragrance and Strength:—*

Tanglewood,
Crown Bouquet,
Mathiola,
Stephanotis,

White Rose,
Jockey Club,
Ess Bouquet,
Wood Violet,

Frangipani,
Opoponax,
Ylang Ylang,
Isle of Wight Bouquet.

16/, 20/, 28/, 48/, and 84/ per doz.

SUPPLIED IN BOND FOR EXPORT AT GREATLY REDUCED PRICES.

THE CROWN SOAPS are prepared with great care from the purest materials, delicately perfumed, and very lasting.**BROWN WINDSOR, HONEY, ALMOND AND GLYCERINE, ROSE, &c.**—In Card Boxes of 3 tablets each, 8/ and 12/ per dozen boxes; also in Wood Boxes of 7 or 14 lbs., 64/, 72/, 84/, and 120/ per cwt.**PURE COAL TAR SOAP.**—Each tablet enveloped in tin-foil. 27s. per gross. The well-known disinfecting properties of this Soap have caused it to be in universal demand. Its regular use, especially in warm climates, quickly allays all irritation of the Skin, whilst its agreeable odour induces a feeling of freshness and comfort not attainable by any other means.**OPALINE SOAP, FOR THE SKIN AND COMPLEXION.**—Absolutely pure, delicately scented, and very emollient. 4/ per dozen tablets.**OPALINE TOOTH PASTE, the New Fragrant Dentifrice,** 8/ per doz.**OPALINE FACE POWDER,** 3/6 and 7/ per dozen packets; 15/ per dozen boxes.*Indents may be forwarded through any English Commission Merchant or Drug House.*

ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE MANUFACTORY,

NEW FAIRFIELD WORKS. OLD BAILEY. E.C.**RIMMEL'S NEW SANITARY PERFUMERY.**

SILVER MEDAL,
National
Health Society, 1883.



SILVER MEDAL,
International Health
Exhibition, 1884.

RIMMEL'S AROMATIC OZONIZER, OR NATURAL AIR PURIFIER.

A fragrant powder which, simply spread on a plate in apartments or places of public resort, evolves the refreshing and healthy emanations of the Pine and Eucalyptus, and produces a quantity of OZONE, the great air purifier. It is particularly suitable for the Bedroom and Nursery, and is also in use in the principal Hotels, Clubs, and Theatres, and in the Saloons and Cabins of several Lines of Steamships. The only pleasant and non-irritant Disinfectant.

In 4-oz. Tins, 18/; by post for 15 stamps; 1-lb. tins, 3s. 6d.; Spreading Plate, 6d.

RIMMEL'S OZONIZED EAU DE COLOGNE, LAVENDER WATER, OR FLORIDA WATER,

Sprinkled on a pad hung up in the air, destroys bad smells and noxious effluvia in sick rooms, closets, &c. It is recommended also to be used on the handkerchief when attending crowded places, visiting the sick, or travelling by land or sea.

Price 2s. 6d. and 5s. per bottle; Pad, 1s.

RIMMEL'S AROMATIC OZONIZED CASSOLETTES,

To carry in the pocket, and preserve from infection. Price 6d.; by post for 7 stamps.

The usual allowance to the Trade. 500 Bills with Name and Address presented to every purchaser of the above articles to the amount of £2.

EUGENE RIMMEL, Perfumer to H.R.H. the Princess of Wales,
96 STRAND, LONDON, W.C.

ORPE'S COMPOUND PERFUME.

½-lb. Bottles, 6/6 each; 1-lb. ditto, 12/6 each.

This compound will be found superior to Bergamot or Lemon for scenting Pomades, Cosmetics, or Oils. (½ oz. to 2 lb. Oil Olive.)

A. F. FOSSE (LATE T. M. ORPE), 329 Old Kent Rd., London, S.E.

Importer of French Pomades and Essences. Obtained through Messrs. Maw, Son & Thompson, and all Wholesale Houses.

HIGGINSON'S ENEMAS,

BEST QUALITY, Green, with Elastic Vagina Pipe and Shield, and Bone Rectum Pipe, in Slide Cedar Boxes.

Sample Post Free, with Reduced Price List, to Chemists only, on receipt of Postal Order for 2s. 6d.; no stamps.

JOHN CENTRETON,

24 NILE STREET, CITY ROAD, LONDON, N.

BRECKNELL'S SKIN SOAP,

A PURE AND UNSCENTED SOAP.

RECOMMENDED BY EMINENT MEDICAL MEN.

In the original Shilling Packets, 8/- per doz.

5 per cent. discount for Cash. 10 per cent. on a gross.

BRECKNELL, TURNER & SONS,

31 HAYMARKET, LONDON.

HANDBILLS AND SHOWCARDS ON APPLICATION

ESTABLISHED 1810.

H. BROOKS, PEEL & CO., COLLAPSIBLE TUBE MANUFACTURERS

PATENTEES AND SOLE MANUFACTURERS OF THE

PORTABLE METAL SPRINKLER STOPPER,

AND DEALERS IN

GLASS BOTTLES FOR PERFUMERS AND OTHERS.

STEAM FACTORIES:

31 Lime St., Camden Rd. (Offices), and Bartholomew Rd., Kentish Town, London, N.W.

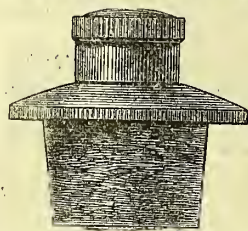
COLLAPSIBLE TUBES OF ALL SIZES.



For Perfumes, Artists' Colours, Soaps, Cosmetics, Creams, Oils, Varnishes, &c. These Tubes are inexpensive and portable, and may be applied to many useful purposes besides those above mentioned.

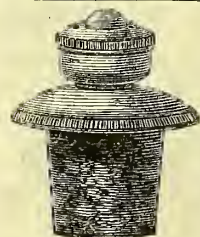
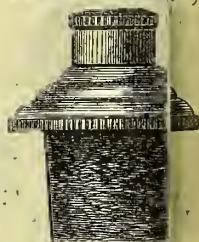
SOLE MANUFACTURERS AND PATENTEES OF

THE PORTABLE METAL SPRINKLER STOPPER,



With Cork fitted thereon for bottles of any size, and having apertures of various dimensions, especially adapted for Perfumes, Hair Washes, Lime and Glycerine Essences, &c.

These handsome stoppers give a character and finish to the most ordinary bottles to which they may be applied. Gilt or plain; and put up if required in handsome glass lid boxes, suitable for shop counters and show cases, at moderate prices.



No. 18a.

THE "TORSION" PATENT SPRINKLER.

The two designs, Nos. 18a and 19a, are those to which we direct special attention, as sizes being in general use; other sizes will follow promptly to meet all requirements, on which Caps with two or more holes will be introduced to meet the public taste.

Particular attention is called to the latest improvement in our Patent Metallic Stopper, the "Torsion."

This New Stopper adheres to the design of the original patent, which has been universally acknowledged as an ornamental and inexpensive article for the Toilette, as possessing all the advantages of a "Permanent and Indestructible Stopper, suitable

for Bottles of all Sizes and Shapes," with the additional security it affords, that the Cap can never be entirely unscrewed, consequently it cannot be lost. It is specially effective as a Sprinkler, while giving a more prompt and copious, yet economic, supply, through the improved action of the Cap. Such combined advantages, in an article of exquisite finish, have long been desired, and it is thus submitted for general approval, and its usefulness when tried will be appreciated by all.

Illustrations, Price Lists, &c., can be had on application, or through any Wholesale House in town or country. All Orders received direct will be promptly attended to.



No. 19a.

CAUTION.—All Stoppers of our Manufacture are made of Pure Tin, and have the name of H. BROOKS & CO. stamped on the under side of the rim.

All Tubes are made of Pure Tin unless specially ordered of Mixed Metal, from the smallest size up to 13 in. 12g.

Notice to the Trade.

GENUINE EAU DE COLOGNE

MANUFACTURED BY

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,

A DESCENDANT FROM THE

Original Manufacturer of this Valuable Perfume,
IS KNOWN THROUGHOUT THE WORLD AS

No. 4.

AND SOLD BY ALL THE LEADING WHOLESALE HOUSES.

In 2 oz. Bottles.

In 4 oz. Bottles.

In 6 oz. Bottles.

In 8 oz. Bottles.

In reputed ½-Pint, Wickered.

In reputed Pint, Wickered.

In reputed Quart, Wickered.

In 4 oz. Bottles, Wickered.

JOHANN MARIA FARINA,
JULICH'S PLATZ No. 4,
COLOGNE-ON-THE-RHINE.

By Special Appointment to the Prince of Wales and to several Imperial and Royal Courts

Possessor of PRIZE MEDALS and DIPLOMAS of the Exhibitions at LONDON, 1851; NEW YORK, 1853;
LONDON, 1862; OPORTO, 1865; CORDOVA (Argentine Republic), 1871; and at VIENNA, 1873; SANTIAGO (Chili), 1875;
PHILADELPHIA, 1876; CAPE TOWN (South Africa), 1877 (Gold Medal); SYDNEY, 1879; and MELBOURNE, 1880.

Sole WHOLESALE Agents for the United Kingdom and Colonies,

FICKUS, COURTENAY & CO.

ST. DUNSTAN'S BUILDINGS, GREAT TOWER STREET, LONDON.

W. KEMP & SON, HORNCASTLE.**PURE CRUSHED LINSEED,**

CONTAINING ALL THE OIL. A strictly pure article, all other seeds, dirt, &c., being entirely removed. It is lightly crushed from a special kind of large bold seed, which gives a larger proportion of meal to husk than the ordinary commercial Linseeds. Price 18/6 per cwt., bag free. Special quotations for 5 cwt. and upwards.

NOTE.—This quality can be obtained from Messrs. Barclay & Sons, 95 Farringdon St., London, in 1-cwt. bags at above price; smaller lots 20/ cwt.

CRUSHED LINSEED No. 2,

Contains all the Oil, and is crushed from sound good Linseed, 17/6 per cwt., bags free.

CRUSHED LINSEED No. 3,

Contains all the Oil, and is crushed from sound good Linseed, 16/6 per cwt., bags free.

CRUSHED SICILIAN LINSEED,

The best for feeding purposes; merely require scalding to make a stiff jelly, and when introduced at once creates a large demand; bags free.

PURE LINSEED MEAL,

WITHOUT OIL. Best quality only, 11/6 cwt., bags free.

All ground in our own mills, and always sent out freshly crushed.

Special Quotations for Quantity.

Above can be had with the Husk wholly or partially sifted out at an advanced price. Correspondence on this subject is invited.

Applications for Samples solicited.

W. KEMP & SON, Seed Crushers, HORNCASTLE.

**CHURCHILL'S
CORROSIVE COMPOSITION,
FOR REMOVING PAINT.**

A vegetable Compound which far supercedes anything yet introduced for removing Old Paint, Varnished Paper, Grease from plain or moulded surfaces, Cleaning Stained or Smoked Marble Chimney Pieces, &c. It is cleaner, a great saving in workmen's time, and gives more satisfaction than any other process.

CHURCHILL'S AMMONIA SOAP.

**CHURCHILL'S
POWERFUL DISINFECTANT,
Instantaneous and Perfectly Inodorous.**

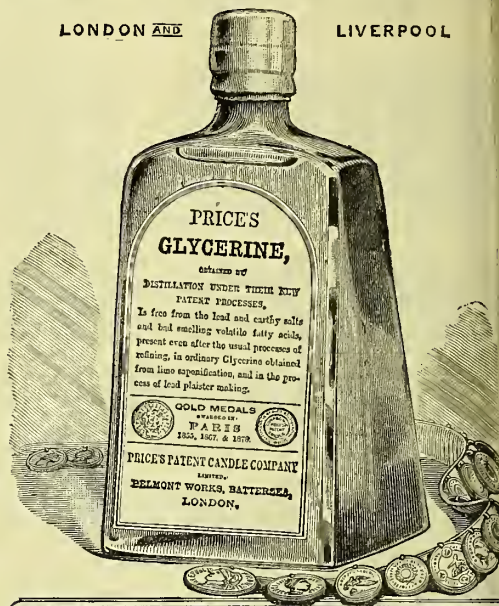
254 LOWER BROUGHTON ROAD, MANCHESTER.

LISTS AND PRICES ON APPLICATION.

PRICE'S PATENT CANDLE COMPANY LIMITED

LONDON AND

LIVERPOOL

**PRICE'S GLYCERINE**

HAS RECEIVED THE HIGHEST AWARDS AT ALL THE GREAT EXHIBITIONS.

MARKING INK.

(Sine Silver.)

Intensely
Black, Permanent, and
Requires no Heating.

IN BULK FOR CHEMISTS' OWN PUTTING

In 4-oz., 8-oz., and 12-oz. Bottles
at 4/6, 7/6, and 10/6 respectively.

Sent free to any part of the United Kingdom on receipt of remittance made payable to

J. Bunker, Chemist, Hackney.

**EXTERMINATION
OF ALL****CORNS & BUNIONS**

Guaranteed by using Gardner's patented Corn and Bunion Exterminator. Painless in operation, "never fails," is not a drug, but an ingenious little instrument which can be used by anyone. Protected in England & Abroad, Price 1/- each of all Chemists, Ironmongers, etc. The highest Surgical Testimonials can be seen and operations successfully performed at the Patentees, who will also send the Exterminator direct for 13 stamps.

G. & J. P. GARDNER, Chiropodists, Kendal.

PHOENIX

ESTABLISHED A.D. 1815

GENUINE INDELIBLE

MARKING INK

THE LEADING &
STANDARD ARTICLE

PREPARED ONLY BY THE WIDOW OF THE LATE
JOHN MURPHY

CHEMIST AT THE ORIGINAL ESTABLISHMENT
11, NILE STREET, EAST ROAD, HOXTON N.

THE ORIGINAL

TRADE MARK.
Estab^d 1815.

NO OTHER ADDRESS — BEWARE OF WORTHLESS IMITATIONS.

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,

Opposite the Julichs Place, COLOGNE.

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

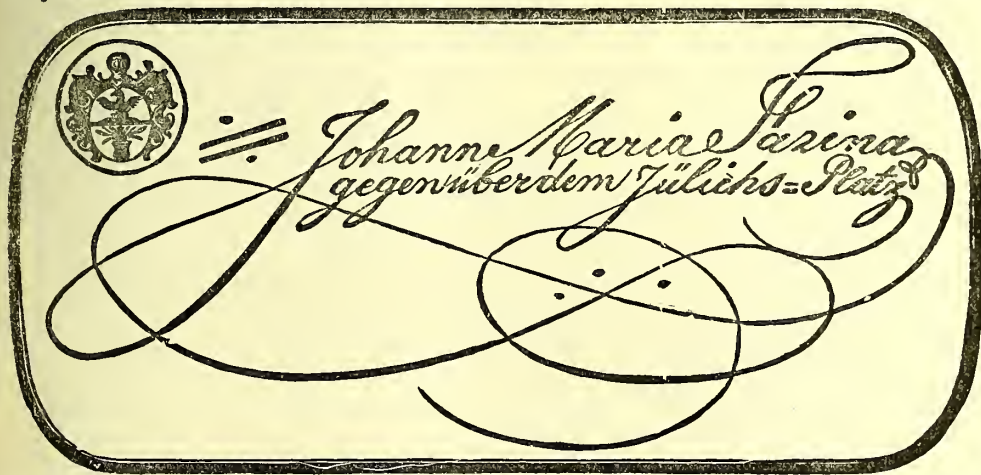
by appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCracken,

No. 38 Queen Street, Cannon Street, London, E.O.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	12 bottles	} to one dozen.
" 2. Short White Bottles	...	...	...	...	...	12 "
" 3. Double ditto	...	...	...	...	...	6 "
" 4. Wickered Bottles (small)	...	...	...	...	...	8 "
" 5. ditto (medium)	...	...	...	...	...	4 "
" 6. ditto (large)	2 "	

JOHANN MARIA FARINA,

OPPOSITE THE JÜLICH'S PLACE.

ASKHAM BROS. & WILSON,

LIMITED,

SHEFFIELD.

SOLE MAKERS OF

LUCOP & COOK'S PATENT

PULVERIZER.

THE MOST ECONOMICAL MILL IN THE
MARKET.

For Pulverising and Reducing to an
Impalpable Powder or to any degree of
Fineness, all materials capable of being
thus treated.

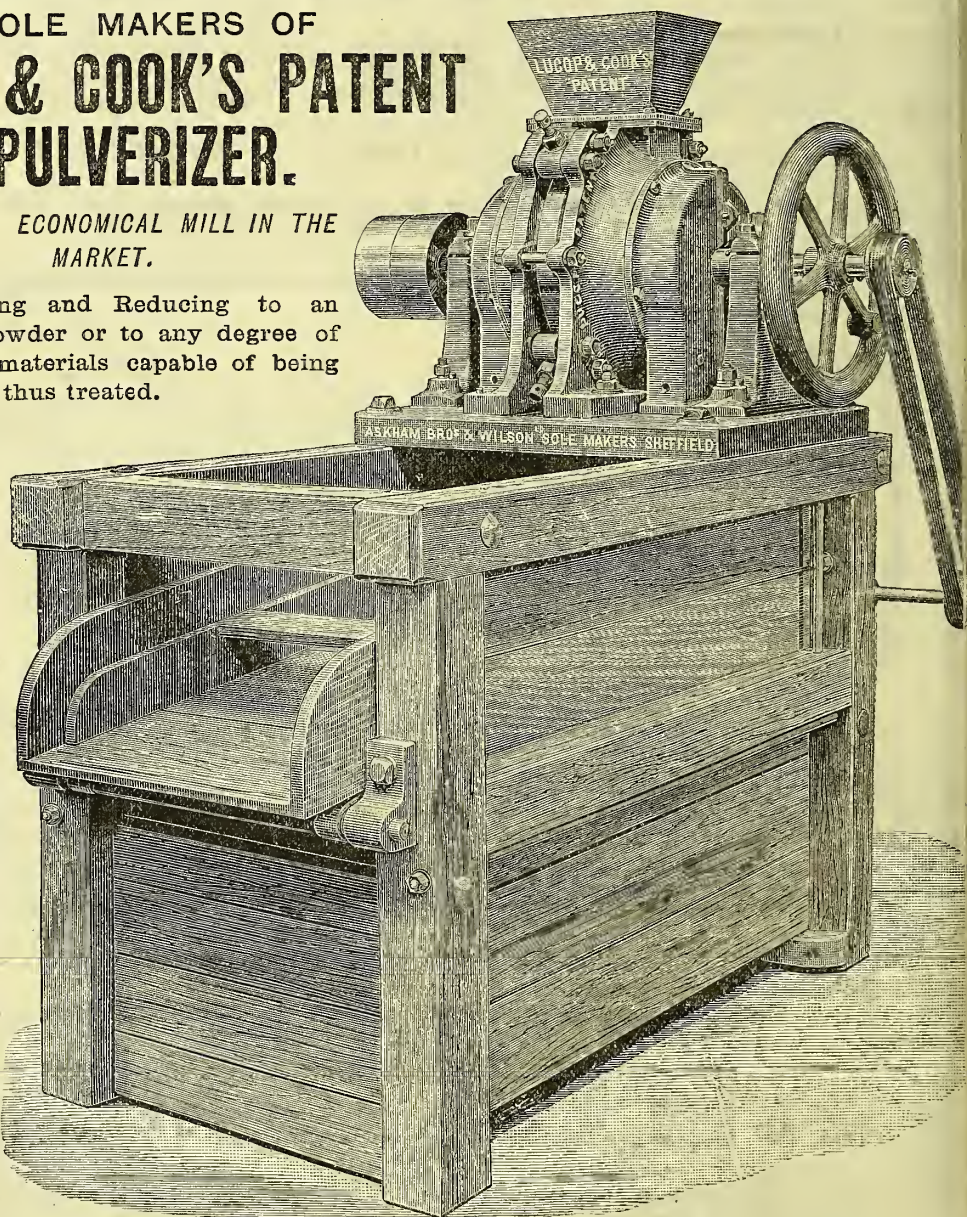
Simple,
Efficient,
Durable,

combined with
Small Cost.

Readily put to-
gether and kept
in order.

Requiring very
little power.

Write for full
particulars.



B SIZE, COMPLETE WITH STAND.

Specially suitable for Pulverising Bone Ash, Plaster, Dry Soap
Fuller's Earth, Glass, and any kind of Chemical
Crystals, &c.

IMPROVED AND LATEST MACHINERY

PARIS, 1878.

FOR

VIENNA, 1873.



DRUG GRINDERS,

WHOLESALE

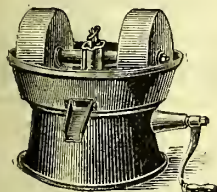
CHEMISTS & DRUGGISTS,



PAINT AND COLOUR MANUFACTURERS, AND OTHERS.

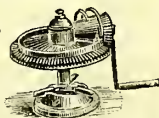
HAND EDGE RUNNER MILL.

With Iron or Granite Rollers and Bed.



HAND MIXING AND CRUSHING PAN MILL.

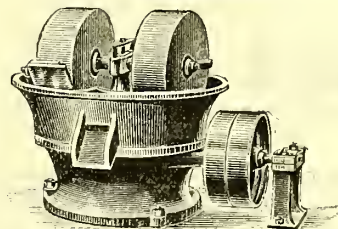
For Ointments, Pastes,



Powders, &c., &c.

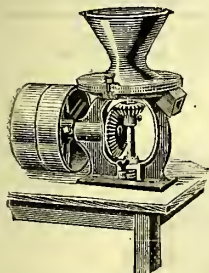
POWER EDGE RUNNER MILL.

With Iron or Granite Rollers and Bed.



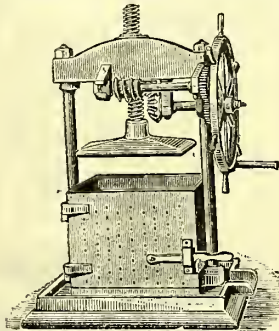
NEW DRUG MILL.

For Ginger, Roots, and all kinds of friable materials.



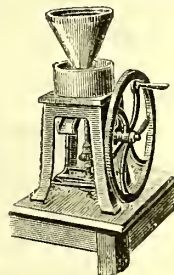
COMPOUND PRESS.

For Tinctures, &c. (made in Wood and Iron).



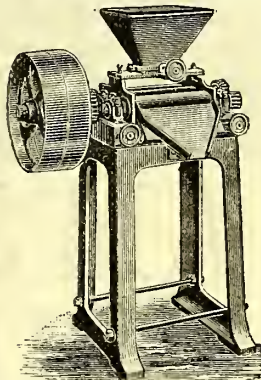
HORIZONTAL MILL

For Dry Powders.



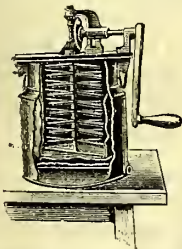
NEW GRINDING MILL,

For Pastes, Colours, and Inks.



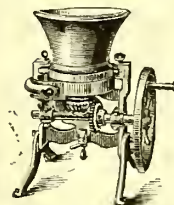
NEW HORIZONTAL MIXER,

For Amalgamating Compounds, &c. (made with or without casing).



IMPROVED PAINT MILL.

For Mixing and Grinding Colours in Water or Oil ready for use.



MACHINES FOR SPECIAL PURPOSES, EVAPORATING PANS, &c., MADE TO ORDER.

Prices and particulars on application to

FOLLOWS & BATE, LIMITED, Engineers,

DUTTON STREET WORKS, MANCHESTER.

CRAWSHAW'S SPECIALITIES.

6d. DYES..(14 to the Doz.)..In $\frac{1}{2}$ gross Counter Cases..48/- Gross.	
6d. DYES..(14 to the Doz.)..In 1 Dozen Boxes .....48/- Gross.	
3d. DYES..On $\frac{1}{2}$ Gross Cards .....21/- Gross.	
3d. DYES..In $\frac{1}{2}$ Gross Boxes .....21/- Gross.	
3d. DYES..On $\frac{1}{2}$ Gross Cards .....14/- Gross.	
2d. DYES..In $\frac{1}{2}$ Gross Boxes .....14/- Gross.	
1d. DYES..In 3 Gross Counter Case, with glass lid .....7/- Gross.	
1d. DYES..On $\frac{1}{2}$ Gross Cards.....7/- Gross.	
1d. DYES..In $\frac{1}{2}$ Gross Boxes .....7/- Gross.	
6d. PERFECT BLACK DYE..In $\frac{1}{2}$ Gross Wood Boxes .....48/- Gross.	

3d. PERFECT BLACK DYE..In $\frac{1}{2}$ Gross Wood Boxes .....21/- Gross.	
1s. SILVER PLATING SOLUTION..On $\frac{1}{2}$ Dozen Cards .....9/- D.	
6d. TINS CRAWSHAW'S INSECT POWDER..In 3 Dozen Wood Boxes .....48/- Gross.	
3d. BOXES CRAWSHAW'S INSECT POWDER..In $\frac{1}{2}$ Gross Wood Boxes .....21/- Gross.	
1s. BOXES CRAWSHAW'S INSECT POWDER..In 1 Gross Wood Boxes .....7/- Gross.	
1d. BOXES CRAWSHAW'S INSECT POWDER..Mounted on Cards of $\frac{1}{2}$ Gross ....7/- Gross.	
3d. BOXES CRAWSHAW'S BEETLE POWDER..In $\frac{1}{2}$ Gros Wood Boxes21/- G.	

E. CRAWSHAW & CO.,

80 FANN STREET, ALDERSGATE STREET, LONDON, E.C.

AXLE GREASEIN 1 $\frac{1}{2}$ LBS. WOODEN BOXES.

Send for Sample Box and Price, free on application.

JOHN ROGERS, 79 VICTORIA STREET, BELFAS.

HOUSEHOLD WANTS SUPPLIED.

CUBLEY & PRESTON'S MARBLE RENOVATOR,

For Cleaning all kinds of White Marble Goods; in bottles, 8d., 1s. 2d., and 2s.

CUBLEY & PRESTON'S ANTI-RUST,

For Preserving all kinds of Polished Steel, Iron, and Gun Metal from RUST; in 1s. this.

WHOLESALE FROM THE MANUFACTORY—

4 HIGH ST., SHEFFIELD.

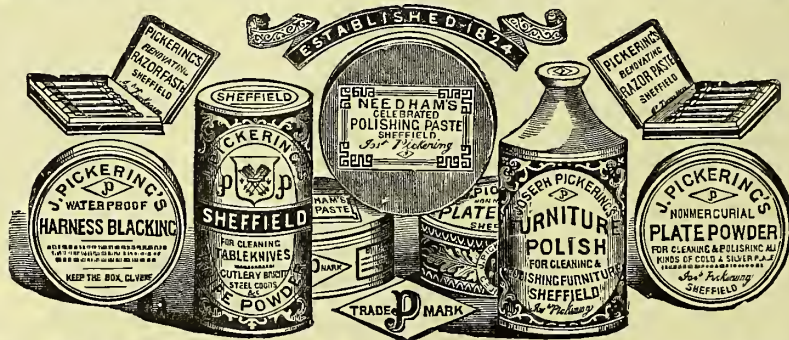
FOR CLEANING PLATE

BRADLEY & BOURDAS'S

ALBATUM or WHITE ROUGH

For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove its superiority over other powders in use. Sold in Boxes at 1s. and 2s.; Tins, 6s. 6 Pont Street, Belgrave Square, and 48 Belgrave Road, London, S.W.

ESTABLISHED 1824.**NEEDHAM'S**

For Cleaning and
Polishing Brass, Copper,
Tin, Britannia Metal,
&c., &c.

POLISHING

Pickering's Furniture Polish, Plate Powder. Knife Powder,
Brunswick Black, Razor Paste, Harness Blacking, British
Polishing Pomade (red) for Meta's, &c.

PASTE.

Wholesale by London, Sheffield, Birmingham, and Wolverhampton Merchants,
and Retail by Chemists, Ironmongers, and Grocers.

JOSEPH PICKERING & SONS, SHEFFIELD.

Gold Medal, Adelaide, 1881.
Order of Merit, Melbourne, 1880.
Diploma of Merit, Vienna, 1873.

Established over Half a Century.

PAINTS. VARNISHES. WOOD STAINS.



VIENNA.

THOMAS S. JACKSON & SONS,



LONDON.

MANUFACTURERS OF

READY-MIXED PAINTS,

In 1, 2, 4, 7 and 14 lb. Tins.

These goods are packed in the "Patent self-opening Tins," which require no cutting. Tins painted to correspond with contents, and enclosed in printed wrappers.

8 USEFUL and SALEABLE TINTS,

Guaranteed to Dry Well.

HANDSOME SHOW BOARDS

Framed and Glazed), with Specimens of the Colours, supplied.

COLOURS AND SAMPLE CARD ON APPLICATION.

OIL VARNISHES

(Every description).

JAPANS.

BRUNSWICK AND BERLIN BLACKS.

TEREBINE.

FRENCH POLISH.

WHITE AND BROWN HARD SPIRIT VARNISHES.

KNOTTING.

LACQUERS.

DRYERS and

GROUND COLOURS } of the finest quality.

DRY COLOURS, all Prices and Shades.

IMPORTERS OF OCHRE,
ULTRAMARINE, &c.

WOOD STAINS,

'SPECIAL.'

MAHOGANY, OAK, WALNUT

SATINWOOD,

ROSEWOOD, EBONY.

Draught, or packed in 6d. bottles (8 oz.),
capsuled and wrapped. Also in powder.

SHOW BOARDS,

With specimens of the Stained Woods,
supplied.

The demand for these Stains is steadily
increasing. They possess great richness
and truth of colour, and

ARE OFFERED AT A REASON-
ABLE PRICE.

NOTICE.—All communications should be addressed to the Office—

JAYTON'S BUILDINGS, 199 HIGH STREET, SOUTHWARK, LONDON, S.E.

There is no connection with any firm of a similar name.

ESTABLISHED 1853.

BROWN'S SATIN POLISH.

Highest Award, Philadelphia, 1876. Gold Medal, Berlin, 1877. Highest Award and only Medal, Paris Exhibition, 1878. Highest Award, Melbourne, 1881. Highest Award and only Medal, Frankfort, 1881. Highest Award and only Medal, Amsterdam, 1883.

Put on by Sponge attached to Wire and Cork in each Bottle. No Polishing Brush required. Dries in a few minutes. Can be used by any lady without soiling her fingers.

The "Satin Polish" is the most Elegant Article of the kind ever produced.

LADIES' SHOES, which have become Red and Rough by wearing, are restored to their ORIGINAL COLOUR AND LUSTRE, and will not soil the skirts when wet. TARNISHED PATENT LEATHER is improved by it.

For Travelling Bags, Trunks, Harness, Carriage Tops, &c., it is unequalled. It will not harden the Leather nor crack. It is not a spirit varnish. In Cartons, 4s. 6d. per dozen; 52s. per gross. Packed in Sawdust, 3s. 9d. per doz.; 43s. per gross. 2½%.

AMERICAN MAGIC BRONZE

Is the best in the Market, and it can be used with good effect on Ornaments, Picture Frames, Iron and Fancy Work generally, as well as for Boots and Shoes. In Cartons, 7s. per dozen. 2½%.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS' SUNDRIESMEN.

Factories: BOSTON; MONTREAL; 18 & 20 Norman's Buildings, ST. LUKE'S, LONDON.

EWEN'S CLARIFIED LARD, MARROW, SUETS, AND OILS.

JAMES EWEN & SONS are induced to give further publicity to these articles, the continued demand by all who have used them being satisfactory proof "that where purity of basis" inointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

Adeps. Benz. B. P. and Pharm. Lard (vide P. J. Vol. I. p. 8). Direct, "for Cash only," from

JAMES EWEN & SONS' CLARIFIED FAT WORKS,

5 HATFIELD STREET, STAMFORD STREET, S.E.;

through any of the Wholesale Houses, with their usual credit, at a small advance.

CAUTION.—See that each package bears their label with name and weight.

QUILLAIA.

A thoroughly good article for Cleansing Fabrics.

Paint, Pitch, Grease Spots, &c., Easily and Instantly Removed.

NO MORE VILE BENZINE !!

QUILLAIA is Snow-white, and is delightfully fragrant.

Metallic Boxes ONE SHILLING at Retail.

WHOLESALE OF LEADING LONDON HOUSES.



**IMPORTANT REDUCTION in the WHOLESALE PRICE of LAMPS,
FROM OCTOBER 1, 1884.**

SAMUEL CLARKE'S PATENT PYRAMID NURSERY LAMP FOOD WARMERS



1st Award, First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lamp Food Warmer.

2nd Award, First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lights.



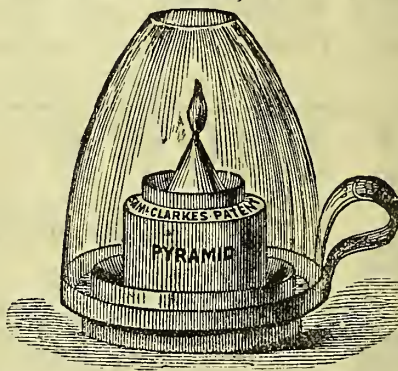
PRIZE MEDAL AWARDED, LONDON, 1873.
PRIZE MEDAL AWARDED, PARIS EXPOSITION, 1887.

SILVER MEDAL AWARDED AT THE HEALTH EXHIBITION, SOUTH KENSINGTON, 1884



PATENT PYRAMID NIGHT LAMPS. THE BURGLAR'S HORROR!!

RETAIL PRICE, 1/- EACH.



NOTICE TO THE TRADE.

Dealers having any PYRAMID Food Warmers, or PYRAMID Night Lights, in an unsaleable condition from exposure in the Shop, can have them exchanged for NEW ONES, without any CHARGE, by sending them Carriage Paid to the Patentee, S. CLARKE, Pyramid Night Light Works, Child's Hill, London, N.W.

Show Cards and Counter Bills will be forwarded CARRIAGE PAID on application by letter or post card.

	RETAIL.	WHOLESALE.	REDUCED PRICES.—NET CASH
No. 1 Holds Half-a pint Food, besides Water	Price 3s. 6d. each	30s. Per Dozen.	27s. per dozen.
No. 2 Holds Three-quarters of a Pint Food, besides Water	" 5s. 0d. "	36s. "	30s. "
No. 3 Holds One Pint Food, besides Water	" 6s. 0d. "	42s. "	33s. "
Clarke's Hot-water Lamps	" 2s. 6d. "	20s. "	18s. "
" Pyramid Night Lamps, Lacquered or Bronzed	" 1s. 0d. "	8s. "	6s. "
Extras.—Porcelain Panakins, No. 1, 8s., No. 2, 9s., No. 3, 10s. per doz. ..		7s. 6d. "	
Lids No. 1, 2s., No. 2, 3s., No. 3, 4s. ..		Tin Panakins No. 1, 8s., No. 2, 10s., No. 3, 12s. per doz.	
		Clear Glasses, 4s.	Roughed, 6s. Opaline, 6s. "

PATENT PYRAMID NIGHT LIGHT WORKS, CHILD'S HILL, LONDON, N.W.

AMERICAN DEPOT: 25 & 27 EXCHANGE ALLEY, NEWARK, NEW JERSEY, U.S.A.

DEAR SIR,—Permit me to call your special notice to the above, showing the great reduction in the wholesale prices of Pyramid Nursery Lamp Food Warmers and Pyramid Night Lamps, from the 1st October, and to the very large profit they bear to the retail dealer. I wish also to call your attention to the note above, showing the exceptional advantages in selling my goods. Orders for Lamps of not less than a dozen will be sent in a free case, carriage paid, to any part of the Kingdom. Soliciting your early order, to be executed at the reduced prices,

I am, dear sir, yours obediently,
SAMUEL CLARKE.

PATENT PYRAMID NIGHT LIGHT WORKS, CHILD'S HILL, LONDON, N.W., July, 1884.

W. B. FORDHAM & SONS.

ESTABLISHED 1825.

TELEPHONE 7514.

GLUE



GELATINE

UPWARDS OF ONE HUNDRED

White Glue	35/	38/	42/	44/	per cwt.
Yellow ditto	38/	42/	45/	48/	"
Country Bright	30/	32/	34/	36/	"

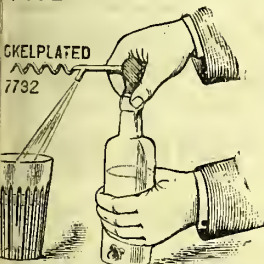
The most reliable and uniform Medal Glue is our "CROSSED SWORDS" BRAND, 42/.

EXTRA SUPER

TONS ALWAYS IN STOCK.

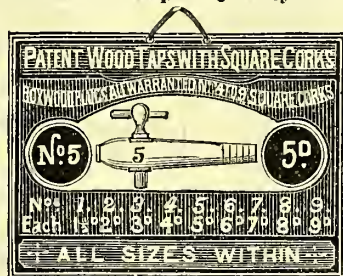
Country Thin Pale ..	56/	60/	65/	70/	per cwt.
Gelatin, Thick	56/	64/	70/	to 130/	"
" Thin	50/	63/	70/	to 225/	"

LITTLE OPENER & CORKSCREW.



Lignum Wire Handle, Nickel-plated Shank and Screw, 12/ per dozen.

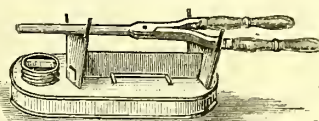
WOOD TAPS WITH SQUARE CORKS.
Extra Super Quality.



Show Cards Free.

Every make in Stock.

TOILET STOVES.



New Cheap Toilet Stove 4/3 per dozen.
Super Quality 8/

CURLING TONGS.

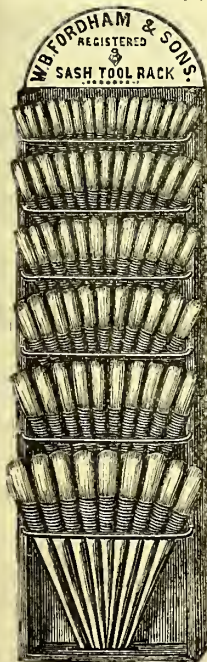
Special, Fancy Word Handles	4/6	per dozen.
White Polished Handles	3/	"
Black " " " "	3/9	"

GERMAN METAL CLEANING AND POLISHING POMADE.



Is an extraordinary and most brilliant polish in the highest touch. It is unlike all other preparations for cleaning and polishing all Metals. Nos. 3d, 6d, 8d., 1s. 5d., and 3s. 4d. per dozen. Special prices for quantity.

NEW SASH TOOL RACK.



No. 1.—To take English Sash Tools, Nos. 1, 2, 3, 4, 5, and 6	3/6	each.
No. 2.—To take English Sash Tools, Nos. 7, 8, 9, 10, and 12	3/3	"
No. 3.—To take Foreign Sash Tools, Nos. 1 to 13	4/	"
No. 4.—To take Foreign Sash Tools, Nos. 14 to 20	3/9	"

Every description of Brushes in Stock.

CHAMPAGNE OR SODA TAPS.



The Abyssinian (N.P.), 13/ per dozen.



The Approval (N.P.), 16/ per dozen.

THE "ARCANUM" BEETLE TRAP.



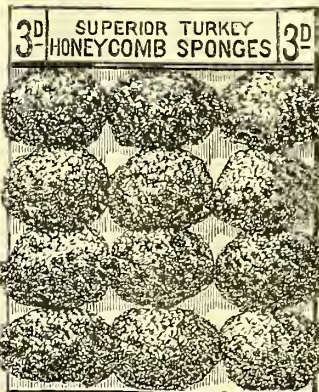
NEW TOILET FIXTURE.



EXTRA SUPER
Brass-faced
FIXTURE
AND
1,000 Sheets
PATENT
Perforated Paper,
COMPLETE,
13/6 per dozen.

Rolls of Paper (1,000 Sheets), 9/ per dozen.

Rolls of Paper (500 Sheets), 4/9 per cwt.



1d.	2d.	3d.	4d.	6d.	9d.	1/
7d.	12	19	24	36	53	7 per dozen.

BRUNSWICK BLACK.



New Shape (with Brush)	6d.	3/9	per dozen.
" " " "	1/	7/6	"
Old Shape	6d.	3/3	"
" " " "	1/	6/6	"



S.V.R.

Guaranteed pure, thoroughly rectified, and made from English Grain Spirits.

60 op., 20s. 9d. per Gal.

56 op., 20s. 3d. „

TINCTURE SPIRIT.

Useful for all purposes where absolute purity is not necessary.

60 op., 20s. 6d. per Gal.

56 op., 20s. „

1s. per gallon discount for Cash with order.

Further allowance for quantity.

STEAM STILL ONLY.

GEORGE PHILLIPS & CO.,
DISTILLERS,

Clerkenwell Road, LONDON, E.C.

ANILINE DYES

TO SUIT ALL TRADES.

BEST SPIRIT BLACK IN THE MARKET.

Mahogany Stain
Ebony Stain
Oak Stain
Walnut-
Stain

PRONK, DAVIS & CO.,
41 Great Tower Street, LONDON, E.C.

COLORS.

CHEMICALS.

INDIGO PASTE.

CUDBEAR.

DYEWOOD EXTRACTS.

Bronze Powders & Metal Leaf.

Electric Polish! Electric Polish!!

For cleaning Silver, Copper, Brass, Steel, & all bright metals, diminished labour, less trouble and expense, use

LEWIS'S ELECTRIC POLISH,

which will make old and tarnished articles bright as new. It is a liquid preparation, and entirely different to anything yet introduced. It contains no acid, mercury, or injurious chemicals, easily applied, and at once produces a bright, mirror-like surface, and lasting. Tradesmen and others who require a polish for their Scales, Weights, Brass Stalls, &c., it is invaluable. For domestic use, Silver, Electro Plate, Steel, Door Handles, &c., it will prove a great boon. When once tried, it will never give place to any other. An outlay of 6d. for a bottle will never be regretted. Price 6d. and 1s. per bottle, of all Chemists.

SOLE MANUFACTURER,

D. J. LEWIS, Chemist, &c., High St., Acton, W.

Wholesale London Agents—SANGER & SONS; G. B. KENT & SONS; S. MAW, SON & THOMPSON; and SOUTHALLS, Birmingham.

The Proprietor can with every confidence recommend this to the Trade.

3 Prince of Wales Crescent, Kentish Town,

London, N.W., January 16, 1884.

SIR,—I have much pleasure in informing you that the bottle of "ELECTRIC POLISH" I bought of you does even more than you promised it should do. I gave it a fair trial with gold, silver, and brass, and found it to give a far more lustrous and lasting polish than any paste or powder I ever tried, and when once a bright surface is obtained it is some considerable time before it becomes dull again. It needs only to be known to be appreciated. You are at liberty to make what use you like of this letter, and I trust the sale of your Polish will continue to increase, as such a very useful and economical preparation deserves to.

I am, Sir, yours truly,

M. HERSANT.

To Mr. LEWIS, Chemist, &c.

Apsley Terrace, Acton, W., April 10, 1884.

Mrs. CONRAD HOWELL has much pleasure in testifying to the excellence of the ELECTRIC POLISH prepared by Mr. LEWIS. It seems to suit all metals equally; it has completely restored some tarnished silver which Mrs. H. was about to send to a Silversmith to be cleaned. No one who tries it can doubt the result.

PURE SPIRITS of WINE

For Tinctures, Essences, Perfumes, &c.

A. MACNAIR & CO.,

RECTIFIERS,

20 DUTTON STREET, MANCHESTER.

Beg to call the attention of CHEMISTS AND DRUGGISTS to their under-mentioned prices of Pure Spirits of Wine:—

Strength per cent.	Specific gravity.	Price per gall.
63 over proof ..	0.8238 ..	20/10
60 " " ..	0.8298 ..	20/4
55 " " ..	0.8368 ..	19/10
50 " " ..	0.8482 ..	19/4

Cash on Delivery.

Jars to be returned or paid for.

For Exportation, Cask included, 4/ 60 o.p., F.O.B.

Orders from the country must be accompanied by a remittance, including the price of the Jars, which are charged as follows:—2 galls. 2/6; 4 galls. 4/0; 5 galls. 5/0; 6 galls. 6/0. When the Empties are returned, the money will be repaid.

Also ABSOLUTE ALCOHOL. Prices on application

BURROUGHS
TRITUS RECTIFICATUS P.B.

**SPIRITS
OF WINE**

THE BEST ENGLISH GRAIN SPIRIT
FREE FROM FUSEL OIL
5 gallons 60 over proof at 19/10 net cash
Special Quotation for Quantity
DUTY FREE FOR EXPORT 4/4

Best BURROUGHS
Methylated
Spirits
Cale St Distillery
CHELSEA,
S.W.
AT LOWEST PRICES
BURROUGHS

PITCH,
OILS, TALLOW, &c.

J. R. PEACE & CO.,

26 ALEXANDRA BUILDINGS,

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IMPORTERS OF AND MERCHANTS IN ALL KINDS OF PITCH, OILS, &c.

Hard and Soft Stearine Pitch	Palm Oil Pitch	Brimstone, Ashes, &c.
Cotton Seed and Patent "	Hot Neck Grease	Roll and Flour Sulphur
Brown, Vegetable, & Wood "	Turpentine & Rosin	Tallow, Cylinder Oils, &
Stockholm and Archangel "	Soft Soap, Glues, &c.	General Produce.

AMPLES AND LOWEST PRICES ON APPLICATION.

ACETIC ACID

SCOTT & CO., ESTABLISHED 1863.
Stratford, London, E.

ALSO
Flowers of Sulphur (Sulph. Sub.) } "Crown
Virgin Roll and Rock Sulphur } Brand."

Sulphurous Acid and other Mineral Acids, &c.

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DALES'

GOLD MEDAL
PORPOISE OIL

DUBBIN,

A SUPERIOR PREPARATION

For Waterproofing, Softening, and Preserving Boots, Harness, Leggings
Machine Belting, Fire Hose, &c. Awarded 3 First Prize Medals, 2 Gold.

Does not prevent the boots blacking. Free from unpleasant odour. Restores the nature and
softness to leather which it loses in wear. Put up in elegant style, and always gives satisfac-
tion. Tins, 1d., 2d., 6d., 1s., and 2s. 6d. Special tins for export. Show-cards, transparencies,
&c., supplied. Handsome Show Cases for first orders of 50s. For further particulars see
page 64, in 1885 Diary. Wholesale from Wholesale Houses, and

JOHN T. DALES, 287 CRYSTAL PALACE ROAD, LONDON, S.E.

GENUINE OIL OF MUSTARD SEED

Is strongly recommended as a safe and effectual remedy in cases of Rheumatism, Gout, Rheumatic Gout, Sciatica,
Lumbago, Headache, Pains in the Stomach, Spasms, Bruises, Chilblains, &c. Retail in Bottles, 1s. each.

Imported by **J. H. & S. JOHNSON,** Wholesale Druggists,
6, 8, & 10 WHITECHAPEL, AND 7 CHURCH STREET, LIVERPOOL.

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Supplied of the best quality in wholesale quantities by

& W. HARVEY & CO., Distillers, Yoker, GLASGOW.

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METHYLATED SPIRIT MAKERS.

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FROM RATCLIFF.

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Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels, Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

OAKEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakey's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Packets, 8d. each; and Tins, with perforated Tops to prevent waste, 6d., 1s., 2s. 6d., and 4s. each.

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For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

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For Cleaning Brass, Copper, Tin, Pewter, &c., &c. Tins, 1d., 2d.; Pots, 6d. and 1s. each.

WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1884.

**METALLIC POLISH POMADE.**

The Manufacturer offers his genuine Metallic Polish Powder. The best in the World, and never surpassed. Made from the Polish Powder (Brillantine). Awarded.

ONLY TO BE OBTAINED FOR HOME AND EXPORT TRADE DIRECT FROM

FRITZ SCHULZ, Jun., Chemical Manufacturer, LEIPSIC.

"LA BRILLANTINE"

(REGISTERED).

SOLD IN 6d. AND 1s. BOXES.

METALLIC POWDER

Is the best, cheapest, and most effective Powder for cleaning and polishing Metals and Glass (especially Brass). It is used by the Life, Horse, and Dragon Guards, the Fire Brigades, &c., &c.

PROPRIETORS—

J. F. BAUMGARTNER & CO.,
21½ NEWMAN STREET, OXFORD STREET,
LONDON, W.

Avoid Imitations under Various Names—Use only the Standard and Original Article.

HAUTHAWAY'S PEERLESS GLOSS,

A NECESSITY in every Family. It BLACKS and POLISHES Ladies' and Children's Boots without Brushing, being supplied with a Sponge attached to the Cork for instant use.

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SOLE WHOLESALE AGENTS FOR THE UNITED KINGDOM.

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GUEST'S FURNITURE POLISH REVIVER.—An entirely new preparation, brilliant polish, little labour, and no finger-marks. In patent air-tight tins.

GUEST'S FURNITURE CREAM gives a brilliant polish with half the usual labour.

GUEST'S SILVERSMITHS' PLATE POWDER.—A new preparation, warranted to prevent tarnishing three times longer than any other.

GUEST'S CUTLERY POLISH gives a brilliant mirror-like lustre. Sold in perforated canisters.

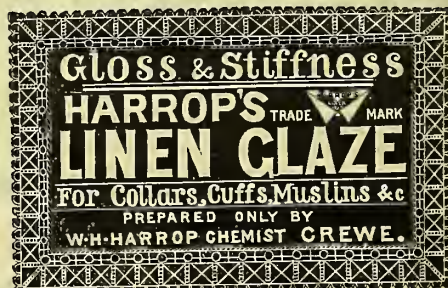
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GUEST'S BRUNSWICK BLACK.

W. G. & S. have every confidence in recommending above to the public, and earnestly solicit a trial. Samples and price lists on application.

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Starching made easy and pleasant.



Prevents the iron sticking to the linen.

Suitable for hot or cold water starch.

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BRACHER'S PATENT

A REAL TIME, LABOUR, AND MONEY SAVER.

These Machines are admirably adapted for mixing all kinds of powders, heavy or light, in the shortest possible time, thereby superseding to a great extent the use of the pestle and mortar, supplying a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Druggists, Colour Merchants, and Manufacturers.

PRICE, WITH SIEVE AND CRUSHER COMPLETE, FROM £1.

CALCUTTA INTERNATIONAL EXHIBITION.

A GOLD MEDAL

has been Awarded to P. H. BRACHER & CO.,
7 High Street, Wincanton, for their Patent
DESIDERATUM MIXER, as per Cable Message
received 2nd Month 19, 1884.

TESTIMONIAL.

The Analytical Laboratory, 30 Hanover Street,
Edinburgh, March 7, 1884.

Dear Sirs,—In replying to your letter of the 5th inst., allow me to say that
I have much pleasure in testifying to the efficiency of the "Desideratum"
Mixer. Being the inventor of a complicated compound, with which I had no
trouble in properly and rapidly mixing, I must say I am indebted to
your machine very greatly on the score of *rapidity of operation*. I usually mix
out 1 cwt. at a time; the material is heavy and apt to clog, but your machine
has reduced these inconveniences to *nil*.

With best wishes,

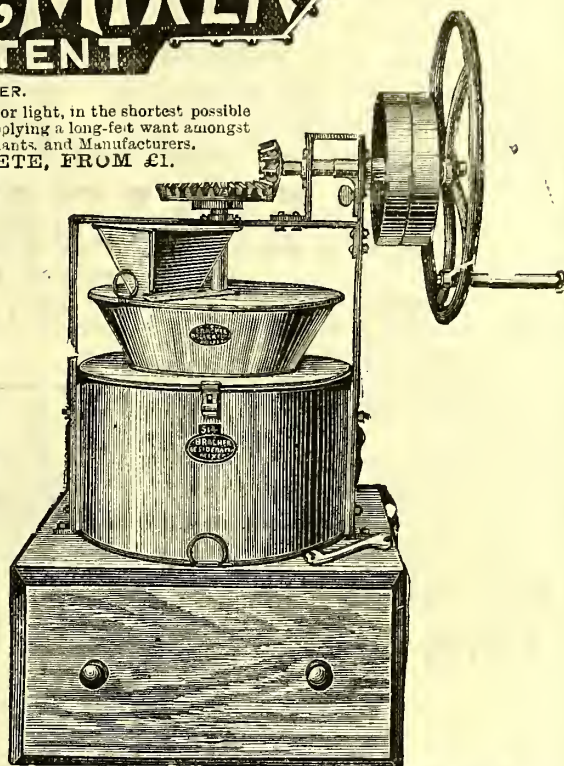
I am, yours very truly,

D. R. S. GALBRAITH.

Messrs. P. H. Bracher & Co.

Send for Illustrated Price List and full particulars, Post Free.

H. BRACHER & CO. (77 High Street), WINCANTON.



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(ESTABLISHED IN 1840),

SOLE MAKERS IN GREAT BRITAIN OF

METALLIC CAPSULES,

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COLOURED SIDE MARK, LABEL, AND OTHER SPECIALITY CAPSULES

(For the Prevention of Fraud and Refilling of Old Labelled Bottles), as supplied to Bass & Co., and the leading
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PLAIN ORDINARY CAPSULES,

For Small Phials, 2s. 6d. and upwards per 1,000, according to size, style, design, and quantity.

SPECIAL CONTRACTS FOR CONTINUOUS DEALING.

Manufacturers of Pure English-made Bottling and Package Tinfoil, from 1s. per
lb. and upwards; Mixed Foil (Foreign Quality), from 6d. per lb. (according to gauge); Patent
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D'Antin.—BORDEAUX: Office, 3 Quai de Chartrons; Factory, Moniépos, Floirac.

PATENTEES OF HYDRAULIC & MECHANICAL PRESSURE CAPSULING MACHINES,

ESPECIALLY ADAPTED FOR CHEMISTS' COUNTERS.

Largely in use by the Trade, and efficiency guaranteed for all sizes of Bottles, at Royalties from 5s. to £2 2s. per annum.

HONOURABLE MENTION,
International Food Exhibition, Agricultural Hall, London, October, 1880

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER

(Guaranteed Pure and Free from Capsicum).

Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

Highly adapted for the manufacture of *Transparent Aërated Waters*, and for all *Dietetic, Medicinal, and Pharmaceutical* purposes.

Medical and other Opinions on

HAY'S Soluble Essence of Ginger.

"Singularly free from resin."—*The Lancet*.
"It should entirely supersede the official preparation of the British Pharmacopœia."—*Medical Press*.

"This Essence is of a very delicate and beautiful appearance, the aroma is fine and powerful, and its strength is very great indeed. The flavour is really exquisite, and it concentrates in quite a remarkable degree the very best aromatic qualities of ginger."—*Drinks*, London, Sept. 1, 1884.

Medical Opinions on the Ginger Beer made from
HAY'S Soluble Essence.

"An excellent effervescing drink."—*The Lancet*.
"Preferable to some wines we have tasted under the name of champagne."—*Medical Press*.



Medical and other Opinions on
HAY'S Ginger Champagne.

"An excellent and most agreeable beverage."—*The Lancet*.
"One of the most delicate and wholesome drinks in the market."—*Medical Press*.

"The FINE AROMA OF GINGER which Mr. Hay has caught with remarkable success is an excellent SUBSTITUTE FOR ALCOHOL as it gives what old port wine drinkers used to call 'BODY,' and to many people, besides professed teetotalers, an occasional change at least from the ROYAL FRENCH BEVERAGE to its less costly, but equally sparkling and more refreshing ENGLISH RIVAL, is a welcome treat."—*The Chemist and Druggist*.

HAY'S Ginger Ale.

"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger. It is a beverage which is sure to win favour wherever introduced."—*The Chemist and Druggist*.

THE COMPOUND FORTIFIED ESSENCE

Specially adapted for the Manufacture of the

FINEST GINGER ALE.

This Essence, which is an addition of *Vanilla, Lemon, and other flavours* to the above, is strongly recommended for the manufacture of the finest *Ginger Beer and Ginger Ale*. It imparts, with the exquisite *Ginger Aroma* of the above-mentioned Essence, a peculiarly fine *fruity flavour* combined with the fullest amount of *fragrance and pungency*.

Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.

HAY'S GINGER CHAMPAGNE ESSENCE

FOR THE MANUFACTURE OF GINGER CHAMPAGNE.

This Essence is a combination of the *Finest Flavours*, and imparts with the *Ginger*, a most exquisite *Aroma*.

Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d.

HAY'S GINGER ALE ESSENCE, HIGHLY CONCENTRATED.

This Essence is a complete *Bouquet* of the *Finest Ginger, Lemon, and other flavours* in a highly concentrated state. *Ginger Beer and Ginger Ale* made with this Essence will possess an amount of *Aroma, Flavour, and Quality* that have hitherto been without precedent, and that will be sure to command a large sale.

THE COST IN MANUFACTURE IS ABOUT ONE FARTHING PER DOZEN BOTTLES.

Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d.

HAY'S GINGER ALE EXTRACT

SUPPLIES PUNGENCY, AROMA, COLOURING, AND FLAVOURING.

This Extract is strongly recommended for the manufacture of *Ginger Ale*, to which it imparts an unusually *Fine Flavour* and *Great Brilliancy*, at a cost of a little under 1d. per dozen bottles.

Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s.

PREPARED BY

W. HAY, Manufacturing Chemist, BEVERLEY ROAD, HULL.

Agents—Messrs. HEARON, SQUIRE & FRANCIS, Wholesale Druggists,
5 COLEMAN STREET, LONDON, E.C.

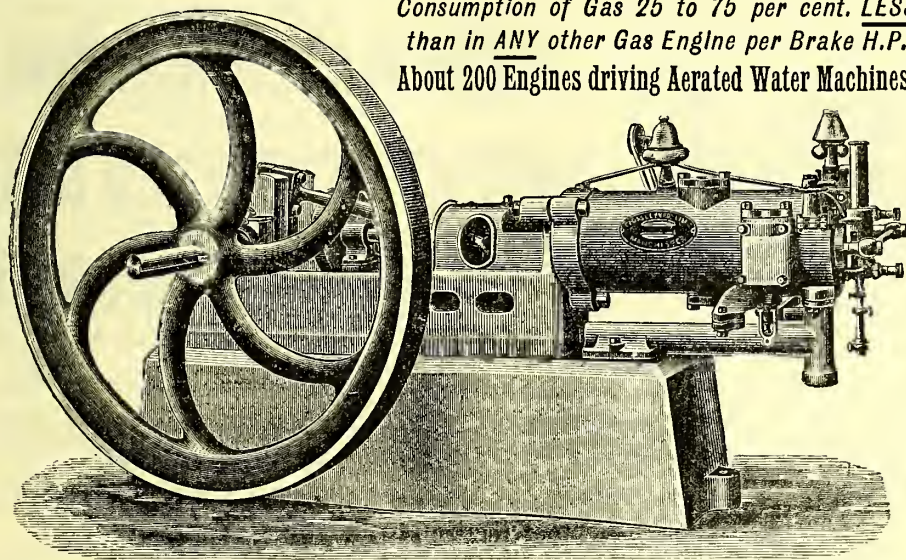
W. HAY CAUTIONS THE TRADE against the use of those spurious so-called **SOLUBLE ESSENCES** which, besides having **NO GINGER AROMA**, are **FLAVOURLESS, RANK, and DISAGREEABLE**, and are little more than **TINCTURES OF CAPSICUM**.

THE "OTTO" GAS ENGINE.

OVER 15,000 IN USE.

4 GOLD MEDALS. 16 SILVER MEDALS.

*Consumption of Gas 25 to 75 per cent. LESS
than in ANY other Gas Engine per Brake H.P.
About 200 Engines driving Aerated Water Machines.*



CROSSLEY'S NEW VERTICAL "OTTO" ENGINES.

Requiring very little ground space.

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The Safest, Simplest, and Best.

CROSSLEY'S PATENT TWIN ENGINES.

Impulse every revolution. The steadiest running Gas Engine yet made.

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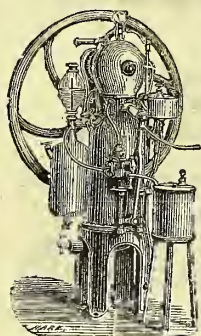
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GOLD MEDAL]

MONDOLLOT'S PATENT

[PARIS, 1878.

SODA WATER MACHINERY.



The "MEDIUM" is guaranteed to make extra sharp Soda Water, and the finest Lemonade, Ginger Beer, Ginger Ale, &c.

The "MEDIUM" requires no skilled labour, and can be worked by hand or steam power.

The "MEDIUM" saves 50 per cent. of materials over any other hand machine, and requires less power.

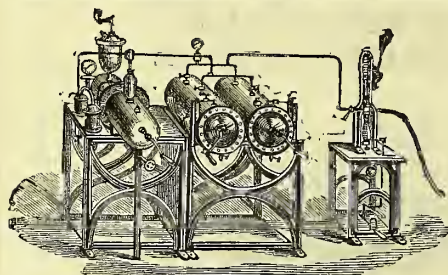
The "MEDIUM" will last for years without repairs beyond the renewal of washers.

The "MEDIUM" requires no gasometer, and occupies but a quarter of the room of an ordinary machine.

The "MEDIUM" is automatic in all its work, and merely requires the wheel to be turned.

The "MEDIUM" is of the finest workmanship, and is in use all over the world.

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INVENTORS & MANUFACTURERS.

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**THE ONLY GOLD MEDAL for Aerated
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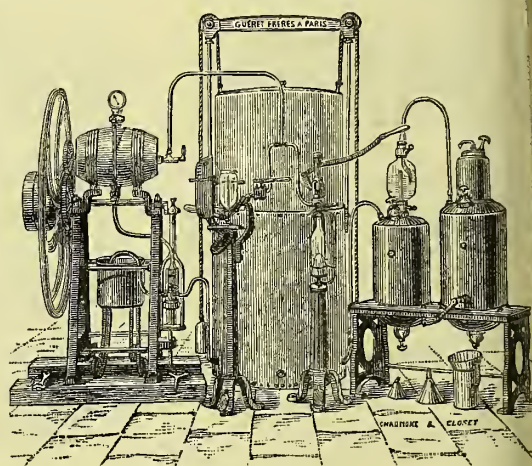
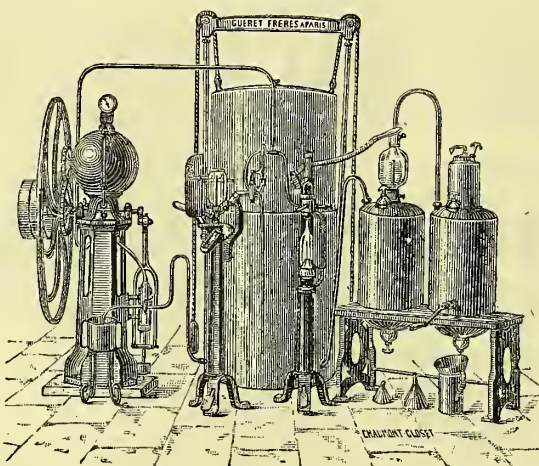
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72, BOULEVARD DE LA GARE, PARIS.

GOLD MEDAL, AMSTERDAM, 1883.

PLANT & SYPHONS FOR THE MANUFACTURE OF AÉRATED BEVERAGES
WITH ALL THE LATEST IMPROVEMENTS.

COMPLETE CONTINUOUS APPARATUS, SPHERICAL OR PEAR-SHAPED.

The Saturator is of brass, guaranteed free from every defect in construction and perfect in action, test at high pressure, combining economy with the greatest sanitary security, and enjoying an unrivalled reputation.



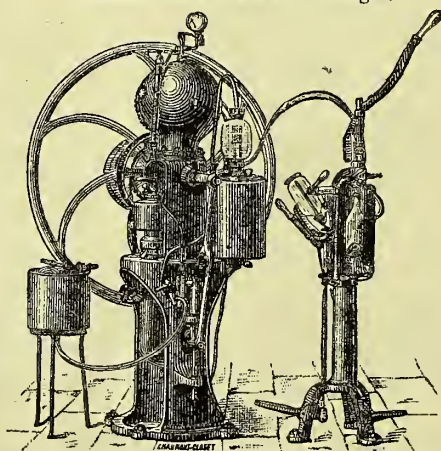
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With small levers, fittings of metal of highest quality, and best glass.



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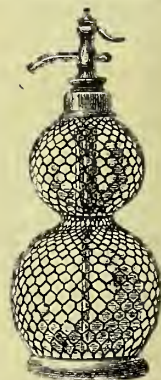
For the automatic generation of carbonic acid gas, the only practical system applicable to the manufacture of Aërated Beverages.



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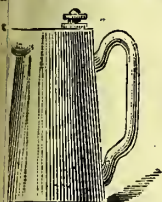
Any one can use them.



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PHOTE'S APPARATUS

(Patented S.G.D.G.)
FOR SELTZER WATER & AERATED BEVERAGES.



This Apparatus is made entirely in PORCE-
LAIN. No Repairs necessary. No Explosions
possible. The cheapest of Table Apparatus.

PRICES :-

- Two Bottle Apparatus .. 5fr. 75c. (4/7½)
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- Powders for the Two-bottle Apparatus (Ten
charges) 1fr. 20c (1/)
- Powders for the Three-bottle Apparatus (Ten
charges) 1fr. 80c. (1/6)

7th of actual size.

Discount to Pharmacists and Druggists.

J. PAQUET, Manufacturer,
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NEW AND IMPORTANT DISCOVERY.

GINGER ALE

FROM PURE JAMAICA GINGER.



THE ROYAL YORK-
shire Pure Jamaica Ginger, is Non-
Intoxicating.

ABSOLUTELY PURE.-
See Analysis by Drs. J. H. HASSALL,
M.D., and OTTO HERNER, F.O.S.

Difficulty of using Ginger in the Manufacture of "Ginger Ale, and at the
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and expense, been thoroughly overcome by
Messrs. HARSTON & CO., of LEEDS.

LA BOURBOULE,

AN EMINENTLY RESTORATIVE MINERAL WATER.

Gains Chloride of Soda, Bicarbonates, Arsenics (38 millig. of arseniate of soda
per litre).
Dose : Half a glass to three glasses per day before or during meals.
Regenerator for Weakly Children, and for Debility in Adults ; also in Anæmia,
Degeneration, Affections of the Skin and Respiratory Organs, and Intermittent
fevers. Employed as a drink and in gargles for Bronchitis and Sore Throat, and as
skin and lotion in Ringworm, Chaps, and Redness of the Skin.
English Divine service on Sundays.
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New Victoria Street, E.C. WILLIAM BETTS & SONS, 22 Henrietta Street,
Coventry Square. Liverpool : EVANS, SONS & CO.

By Special Appointment to

R.H. the Duke of Connaught and the Royal Family



BOURNE WATERS.

THE PUREST IN ENGLAND.

R. M. MILLS & CO.,

BOURNE, LINCOLNSHIRE,

MANUFACTURERS OF

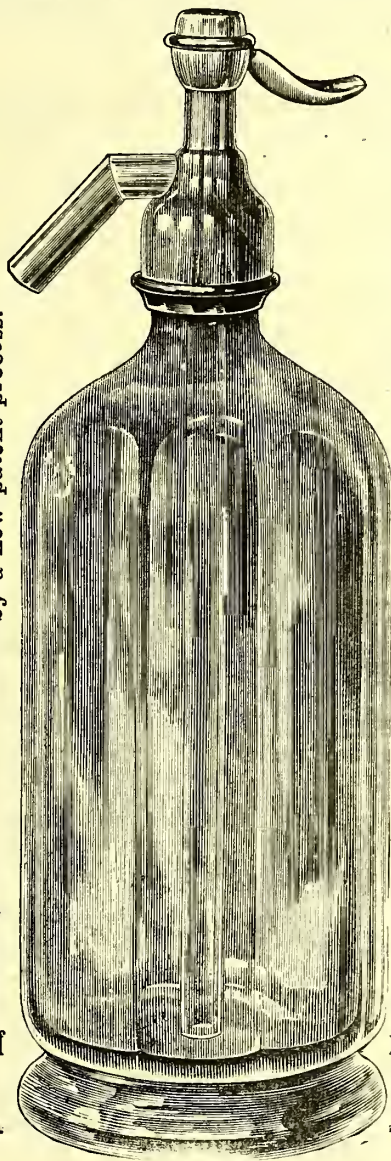
SODA, POTASH, LITHIA, AND SELTZER WATERS,
LEMONADE, AND AROMATIC GINGER ALE.

dozen and 6-dozen Cases Carriage Paid.

Prices and Pamphlet on application. Agents appointed.

JAMES VIDIE ET FILS,

Pantin Glass Works, Paris,
PATENTEES OF THE
OCTAGONAL SYPHON.

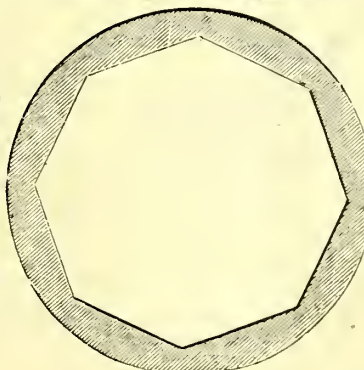


The "Octagonal" is externally similar to the ordinary
Syphon, the interior being blown of an octagonal shape
by a new patent process.

Gives a most brilliant and sparkling appearance to the
contents, and can resist double the pressure of ordinary
Vases. Greatly recommend our new tint, "AZURE
BLUE," which is the best tint for Syphon Vases.

Sample
sent on
receipt of
2/-

Sample
sent on
receipt of
2/-



TO BE HAD OF
Messrs. BARNETT & FOSTER,
THE BRITISH SYPHON CO.,
And all Mineral Water Engineers.

TO BE HAD OF
Messrs. IDRISS & CO.,
Messrs. HAYWARD TYLER & CO.,
And all Mineral Water Machinists.

SOLE AGENT:

C. MELIN, 37 CRUTCHED FRIARS, LONDON, E.C.

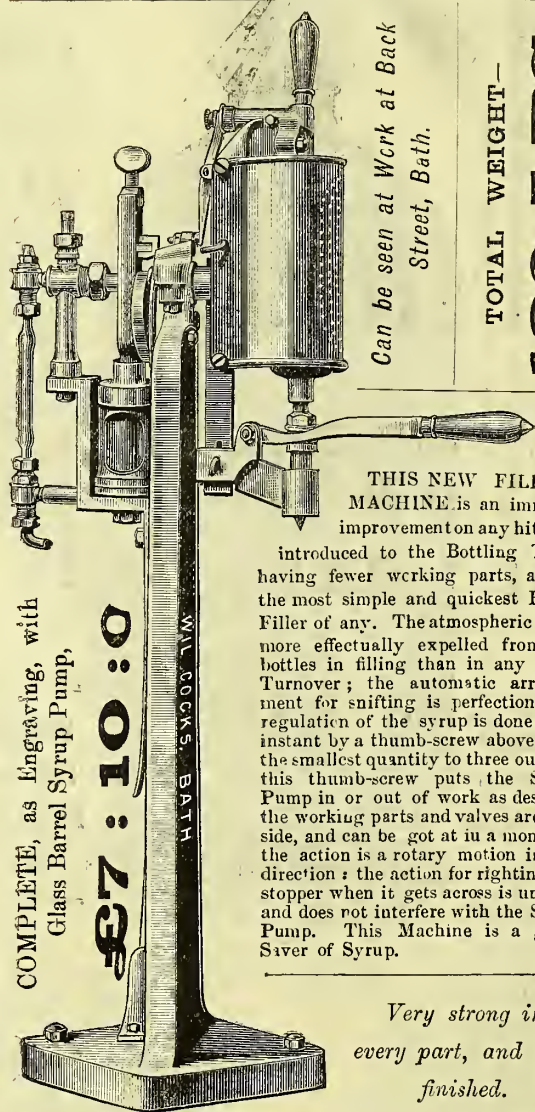
WILCOCKS'

NEW REGISTERED DESIGN AND PATENT

APPLIED TO

TURNOVER FILLING MACHINE

FOR FILLING INTERNAL STOPPER BOTTLES.



Can be seen at Work at Back Street, Bath.

TOTAL WEIGHT—
130 LBS.

THIS NEW FILLING MACHINE is an immense improvement on any hitherto

introduced to the Bottling Trade, having fewer working parts, and is the most simple and quickest Bottle Filler of any. The atmospheric air is more effectually expelled from the bottles in filling than in any other Turnover; the automatic arrangement for snifting is perfection; the regulation of the syrup is done in an instant by a thumb-screw above, from the smallest quantity to three ounces; this thumb-screw puts the Syrup Pump in or out of work as desired; the working parts and valves are outside, and can be got at in a moment; the action is a rotary motion in one direction: the action for righting the stopper when it gets across is unique, and does not interfere with the Syrup Pump. This Machine is a great Saver of Syrup.

Very strong in every part, and well finished.

We have laid down Special Additional New High-Class Machinery to meet the increased demand for our Goods.

N. G. WILCOCKS,

SOLE MAKER AND VENDOR,

BATH, SOMERSET.

N. G. WILCOCKS BATH.

AERATED WATER MACHINERY.

READ THE SUBJOINED TESTIMONIALS.

Battersea, London, 4th February, 1885.
DEAR SIR,—I have much pleasure in sending you a testimonial for your make "Favourite" Soda Water Machine, as supplied to me about 2½ years ago. It has given me every satisfaction, and has done its work well; has cost nothing for repairs, because none required. The waters are highly gaseous, and the machine produces in the highest state of perfection. Your Dial Pressure Gauge does great credit, as it does not get out of order. Being an old-established Mineral Water Manufacturer, I offer my opinion with some confidence. You may publish this if you think fit.

To Mr. WILCOCKS, Bath.

Yours truly, T. HIC

Aerated Water Works, Howden, York.
February 10th, 1885.

Mr. N. G. WILCOCKS, Engineer, Back Street, Bath.

DEAR SIR,—I have pleasure in hearing testimony to the exact workmanship of your machinery. Four years since I had an Aëric Machine and "Eclipse" Bottler, and also a small Engine and Boiler, all which continue to work to my satisfaction. I may add that, with exception of the Engine and Boiler, we put the machinery up ourselves. You are at liberty to make what use you like of this.

Yours truly, ROBT. BRIGG

Princes End, Tipton, February, 1885

To Mr. N. G. WILCOCKS, Bath.

From BAYLIS, THOMPSON & Co., Aerated Water Manufacturers.

DEAR SIR,—We have great pleasure in stating that the Aerated Water Machinery you supplied us with two years ago continues to work well, gives us every satisfaction.

Yours truly, BAYLIS, THOMPSON & Co.

From COPELAND & TURNER, Portland Mineral Water Works, 9 Upper Market Square, Hanley.
January 24th, 1885.

To Mr. WILCOCKS, Bath.

DEAR SIR,—I have much pleasure in testifying to the excellence of the Machinery supplied to us by you. We have now had it in use for 1½ years, and it has given entire satisfaction.

Yours respectfully, COPELAND & TURNER
J. COPELAND.Range Road, Denton, Grave-end, Kent.
February 5th, 1885.

DEAR SIR,—Having purchased of you a Soda Water Machine and Engine and Boiler, I am happy to say they have given me great satisfaction, and are all I could have desired, and it has been greatly approved of by my friends. You may print this if you please.

Yours respectfully, STEPHEN ALLEN
Mr. WILCOCKS, Engineer, Bath.Southsea Steam Mineral Water Works,
Middle Street, January 30th, 1885.

To Mr. WILCOCKS, Bath.

SIR,—Your Turnover Filling Machine is still working admirably, and appears as good now as when I first had it. It is really the best filling machine for quickness and ease of working I ever had.

Yours truly, T. MARTIN.

Holland Street, Brixton, London, S.W.

From ROE & MERCHANT, Aerated Water Manufacturers.

To Mr. WILCOCKS, Engineer, Back Street, Bath.

DEAR SIR,—Your favour to hand. We are pleased to say that the large Double Soda Water Machine that we purchased from you three years ago has been in constant work ever since. It has given us every satisfaction. In fact, we have never had the slightest trouble with it, and it turns out a first-class Aerated Water.

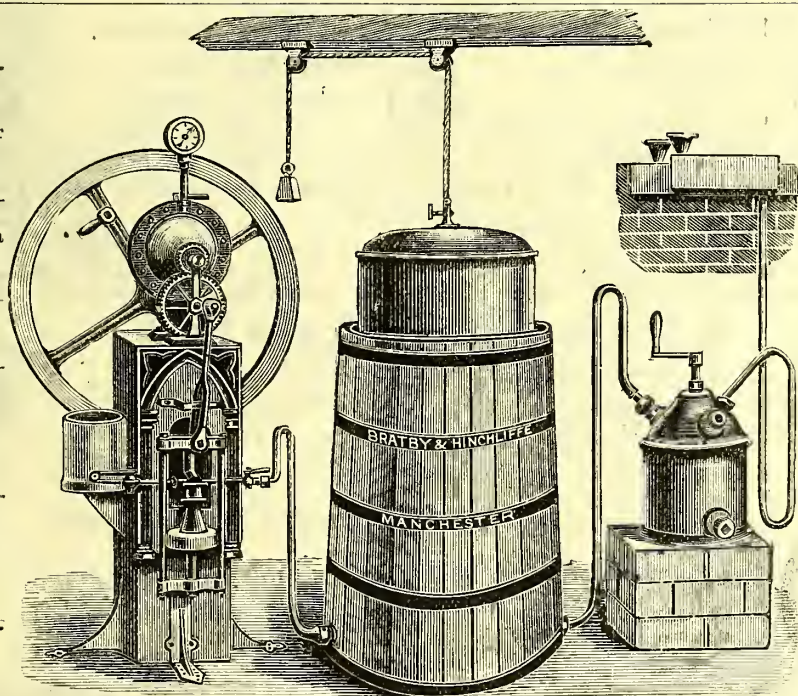
We remain, dear Sir, yours truly,
ROE & MERCHANT.

SODA-WATER MACHINERY

SPECIAL NOTICE.

BRATBY & HINCHLIFFE have pleasure in introducing to the TRADE their

NEW "CHEMISTS" SODA-WATER PLANT.



Makes all the popular
Aerated Beverages.

Can be started at a
minute's notice.

Stable for Export.

Simplest and Best
Soda-water Plant
in the Market.

Specially made for
"Chemists."

Guaranteed to pro-
duce pure high-class
Aerated Waters.

Full Instructions to
Manufacture all kinds
of Aerated Waters are
given with each Plant.

Capable of manufac-
turing 100 doz. full-
size bottles of Aerated
Waters per day.

RICE: "Chemists'" Soda-water Plant complete, £28.

Specially designed for Chemists, Hotel-keepers, and Regimental Messes. BOTTLING MACHINES, £8 extra.

EVERY REQUISITE

FOR AN AERATED WATER MANUFACTORY SUPPLIED.

WRITE FOR ILLUSTRATED CATALOGUE, FORWARDED FREE.

BRATBY & HINCHLIFFE,

SANDFORD STREET, ANCOATS, MANCHESTER, and
146 MINORIES, LONDON, E.C.

THE ONLY PRIZE MEDAL FOR SYPHONS AND SELTZOGENES

EXHIBITED, IN COMPETITION WITH THOSE OF OTHER LEADING MAKERS,

AT THE

INTERNATIONAL HEALTH EXHIBITION,

LONDON, 1884,

HAS BEEN AWARDED TO

THE BRITISH SYPHON MANUFACTURING CO.,

EUGSTER & KOERTGEN, Proprietors,
2 Gresham Buildings, Guildhall, E.C. LONDON.
Works, Wickham Street, Lambeth.

SEVEN GOLD, SILVER, AND OTHER PRIZE MEDALS FOR
Very superior Quality, Make, and special Excellence of Finish.

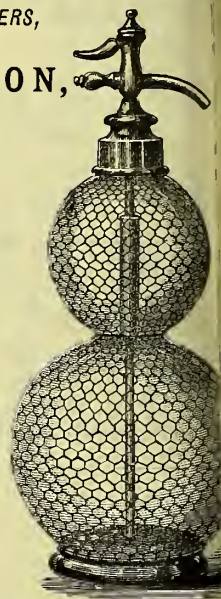
Metal beautifully Polished, and warranted free from Lead.

IMPORTANT.

ALL OUR APPARATUS ARE STAYPED THUS



GUARANTEED PERFECT,
AND OF FIRST-CLASS
WORKMANSHIP.



PRICES FOR SYPHONS.

Short Levers	.. .. .	22/6 per doz.
Long	.. .. .	24/
Octagonal or Diamond Vases	.. .. .	1/6 per doz. extra
Superior Nickel-plated Tops	.. .. .	4/6
Strongly Silver-plated Tops	.. .. .	9/

PRICES FOR SELTZOGENES.

3-pint Size, wire covered	.. 13/	Cane covered	.. 18/
5-pint	.. 18/	Cane	.. 18/
8-pint	.. 30/	Cane	.. 30/
LIBERAL DISCOUNT.			
With Silver-plated Top or Wire	.. .. .	5/	extra
<i>Drop Cups, Measures, Extra Fittings for Repairs.</i>			

CAUTION.

To ensure the purchase of the genuine celebrated SELTZOGÈNES OF D. FÈVRE, which do not cost more than the imitations, observe on the shoulder of the apparatus the words "VERITABLE SELTZOGÈNE DE FÈVRE," and the Trade Mark signature

Weight of the cases: Cases containing 6 8 pints, about 90 kilos.; 12 5 pints, about 90 kilos.; 12 3 pints, about 60 kilos.

SELTZOGÈNES CANID & WIRED,

ALL MY GOODS ARE TESTED.

OFFICE—

WORKS—

398 Rue St. Honoré, Paris.

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MELBOURNE EXHIBITION—First Order of Merit awarded to
Thessier-Fèvre.

Celebrate a D. Fèvre Seltzogenes and Powders, for immediate
production of Soda Water, Eau de Vincy, Sparkling Lemonade, and Aerated
Wines.

D. Fèvre, 398 Rue St. Honoré, Paris, Sole Inventor
and Proprietor of the Article and Name "SELTZOGÈNE." The-
sier-Fèvre, Son-in-Law, Manufacturer.

WHOLESALE PRICES.—Celebrated D. Fèvre Seltz-
ogene.—3 pint, wire covered, 12s. each; 3 pint, cane covered, 12s. 6d. each;
5 pint, wire covered, 18s. each; 5 pint, cane covered, 19s. each; 8 pint, wire
covered, 30s. Liberal discount allowed.

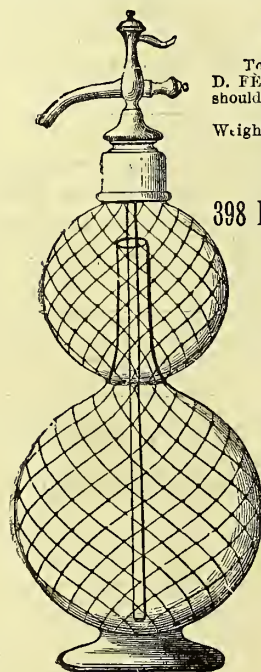
Case and Packing.—12 Seltzogenes, 3-pint size, 4s. net; 12 Seltzogenes,
5-pint size, 5s. 8d. net; 6 Seltzogenes, 8-pint size, 9s. 8d. net.

CELEBRATED D. FÈVRE POWDERS FOR THE SELTZOGÈNES.

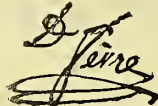
Pure Tartaric Acid and Bicarbonate of Soda in the highest
state of perfection.—3 pint, per dozen boxes of 12 charges, 24s.; 5 pint, per
dozen boxes of 12 charges, 36s.; 8 pint, per dozen boxes of 12 charges, 60s.;
3 pint, per dozen boxes of 10 charges, 20s. 6d.; 5 pint, per dozen boxes of 10
charges, 30s. 6d.; 8 pint, per dozen boxes of 10 charges, 45s. 2d. Liberal dis-
count allowed.

Extra-Taps, Tubes, Valves, Washers, &c. Direction
for Repairs. Drip Catchers, Fittings, Measures, &c.

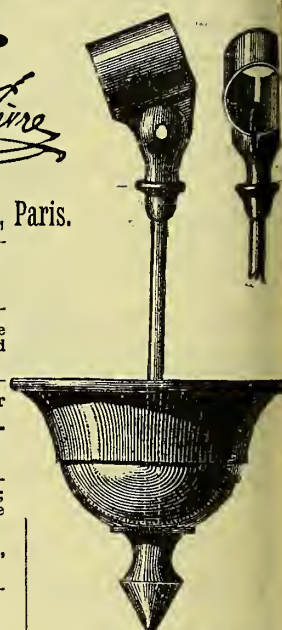
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TRADE MARK.



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D RIP CATCHERS
for
D. FÈVRE SELTZOGÈNES.
8s. 6d. per dozen.

Registered April 1, 1879,
No. 333,951.

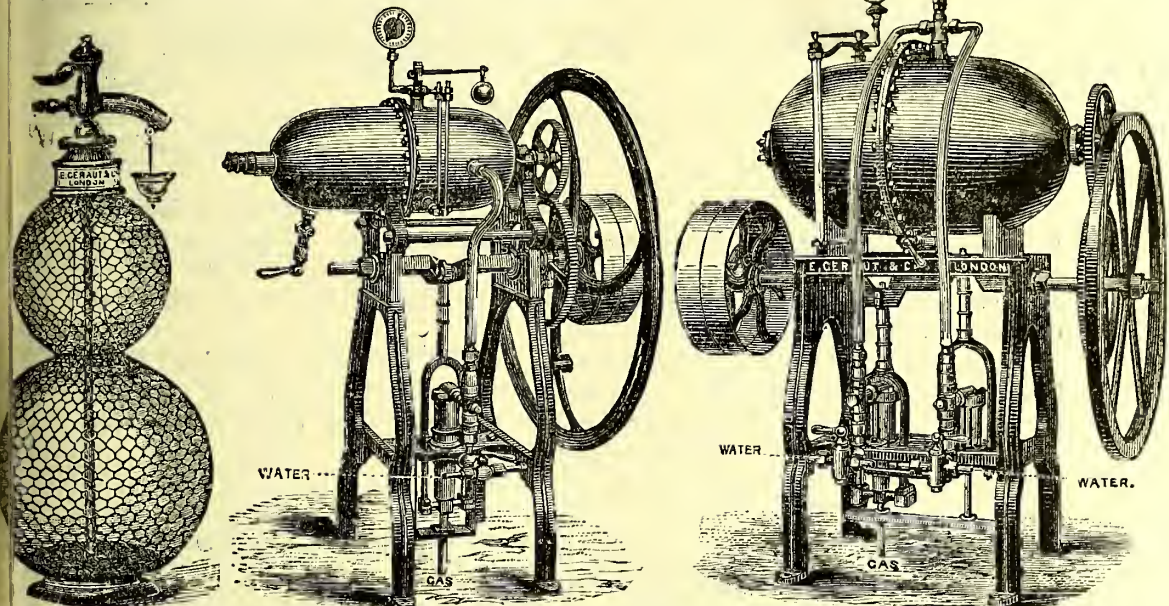
THESSIER-FÈVRE,
SOLE MANUFACTURER.

EUGENE GERAUT & CO.,

PATENTEES AND MANUFACTURERS OF

Soda-Water Machines, Filling Machines, Syphons, Seltzogenes, &c.

SEND FOR CATALOGUES FOR PARTICULARS AND PRICES.



IMPROVED PATENT EVER SELTZOGENES

FIRST INTRODUCED BY EUGENE GERAUT IN 1853,
for the immediate production of Eau de Vichy,
Soda Water, Sparkling Lemonade, and
Aërated Waters.

WHOLESALE PRICES AS FOLLOW:

3 Pint Wire ..	13/0	3 Pint Cane ..	13/6
" " ..	18/0	5 " " ..	19/0
" " ..	30/0	8 " " ..	32/0
1 Pint Size, strongly Silver Plated, richly Decorated, Porcelain Stand	30/0		
1 Pint ditto ditto ..	38/0		
1 Pint ditto ditto ..	48/0		

IMPORTANT NOTICE.

orders of Three, 15%; large discount allowed
quantities upwards. Strongly Silver-plated
Top, 5/ extra.

POWDERS FOR THE ABOVE.

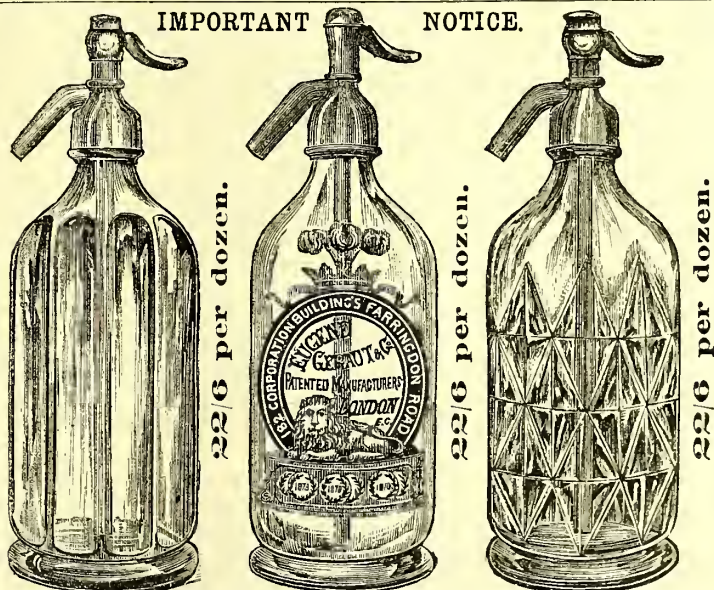
	12 Charges. Per doz.	10 Charges. Per doz.
1 Pint Size, in Handsome Boxes.	21/0	18/6
1 Pint ditto ditto ..	30/0	28/0
1 Pint ditto ditto ..	51/0	44/6

LIBERAL DISCOUNT.

Illustrated Catalogues on application.

Ordering our Seltzogenes through firms dis-
tinctly state that you require our celebrated name,
EUGENE GERAUT & Co., marked on the metals.

IMPORTANT NOTICE.



MESSRS. E. GERAUT & CO. (the first introducers and manufacturers of Syphons in England 35 years ago) have much pleasure in informing their numerous customers, and the Trade generally, that in order to maintain their position as the Premier Manufacturing Firm of Syphons in the World, they have now finished most extensive alterations and additions to their premises, as well as a New and Complete Factory for the manufacture of Glass Vases of the best and purest description. Messrs. E. GERAUT & CO. confidently request their customers, and the public generally, to compare their Syphons with any other make at present in the market, feeling assured that for excellent finish, efficiency, and artistic appearance they are second to none in the trade, and the large and increasing demand of late years experienced fully and authoritatively demonstrates the superiority of their make of Syphons over the manufactured by younger firms in this branch of the trade. Messrs. E. GERAUT & CO. are therefore in a position to undertake orders of the largest magnitude for their justly celebrated Syphons, which are well known at home and abroad for their safety, simplicity and elegance, and they beg to state, to ensure punctuality and despatch, they shall be very happy to book orders in advance, always guaranteeing the best workmanship and materials. The tops are guaranteed to be manufactured of pure black tin, and are most carefully finished, and every syphon, previous to being sent out, is tested at a very high pressure.

WHOLESALE PRICES: Long and Short Levers, Oval, Cylindrical, Octagonal, and Diamond, 22/6 per dozen for quantities of ONE GROSS
SAMPLES AND CATALOGUE ON APPLICATION.

OUR ONLY ADDRESS IS—139 & 141 FARRINGDON ROAD, E.C.

THE ONLY PRIZE MEDAL



HIGHEST PRIZE MEDAL



THE CHEMISTS' AERATED & MINERAL WATERS

ASSOCIATION, LIMITED.

TO CHEMISTS NOT SHAREHOLDERS.

I beg to draw your attention to the great success which has attended this Association during the past three years. There are now about One Thousand Chemists on the Books, and Dividends of $3\frac{1}{4}$, 5, and 6 per cent. have been paid for the years 1882, 1883, and 1884 respectively.

These facts are most substantial proofs of the satisfaction given to our Shareholders and their Customers, and of the excellence of the Waters manufactured. I therefore feel convinced it would be greatly to our mutual advantage were you to favour us with your trade, for the more the trade the larger the profits, and the greater the possibility of an early reduction in prices.

I have much pleasure in informing you that a few £1 Shares have been placed in my hands for transferring to Chemists (only) wishing to join the Association. Not more than one can be transferred to each Chemist, applications for which will be taken in the order in which they are received. Sample orders sent if required.

Trusting to have your valued support,

H. T. BUTLER, Secretary.

LONDON

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HARROGATE

45 Gifford St., Caledonian Rd., N.

Sun Factory, Victoria Road.

Montpellier Works, Starber

VALLET'S PATENT IMPROVED STOPPERED BOTTLES,

For Mineral Waters and Gaseous Liquids,

Are now used by upwards of 1000 Soda Water Manufacturers in the United Kingdom.

PRICES (Per Gross).—Patent Stopper, as per Fig. 1, 4/6; ditto, as Fig. 6, 4/6; ditto, as per Fig. 7, 4/6; Patent Stoppered Bottles, ready for use; ditto Half Bottles, ditto; Patent Unstoppered Bottles; ditto Half Bottles; Fig. 9. Boxwood Bottle Openers, polished, 8/6; ditto, fitted with rubbers, 10/6; Common Wood Bottle Openers, 5/6; ditto, fitted with rubbers, 7/6; Fig. 10, New Bottle Opener, 6/-.

ROYALTY FREE.



Fig. 2.

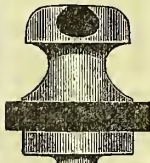


Fig. 6.



Fig. 1.



Fig. 7.

It will be seen by reference to figs. 6 and 7 that I now form a bulb or nut under the base of my Stopper for the purpose of easily extracting same from the Bottle without spoiling or removing the indiarubber from the body of the Stopper. This is readily accomplished by the use of a suitable tool made to fit on the nut; the Stopper being grasped with the thumb and forefinger, the tool is inserted into the stopper, withdrawn from the bottle in a second, without injury to the stopper.

Therefore, it will be a great saving to Mineral Water Manufacturers, as by the old way of extracting the Stoppers from the Bottles when necessary, very often the indiarubber is spoiled, and the time taken by this slow process is worth more than the Bottle itself; so that in many instances Bottles with spoiled or dirty Stoppers are put aside as worthless stock.

Figs. 1 and 6 Stoppers, when invoiced without Bottles, are ready fitted with the rubber washer on, and are easily inserted into the Bottle by the simple pressure of the thumb, the washer at the same time falling in the hollow part of the stem, when passing into the Bottle. They are the only Stoppers which require no tool to fit into the Bottle; and when a Bottle breaks, which seldom occurs, the Stoppers are always fitted with washer and ready to be inserted in a new Bottle. Therefore they are the most durable and inexpensive Stoppers in the Trade.

Sample and Particulars sent on application to

L. VALLET, 49 EVERTON RD., LIVERPOOL

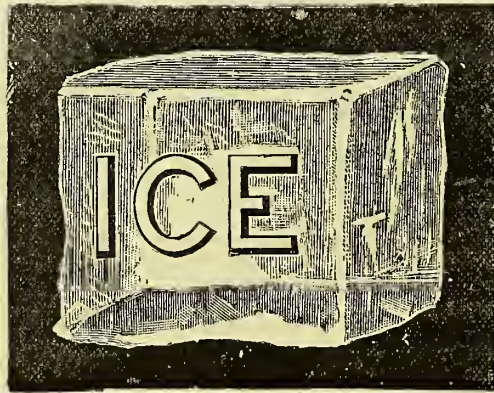
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MINERAL WATERS.

FREDERICKSHALL (5 Cases, 6d. per Case less), 28/ Case, 30 bot.; 39/ Case, 60 1/2-bot.
APOLLINARIS WATER, 25/- Hpr., 50 bts.
" " " 39/- Hpr., 100 1/2-bts.

"Carriage paid." Hampers free.
5 per cent. discount if 20 Hampers.

HUNYADI JANOS (10 Cases, 3/- and 5/- less), 80/- Case, 25 bts.; 50/- Case, 50 1/2-bts.
ELTZER " " " 11/- Hpr., 25 bts.
" " " 15/- Hpr., 50 1/2-bts.
FULNA " " " 18/- Case, 20 bts.
" " " 30/- Case, 50 1/2-bts.
VICHY " " " 21/- " 50 bts.
" " " 27/- " 50 1/2-bts.
CARLSBAD " " " 27/- " 50 bts.
KISSENGEN " " " 42/6 " 50 "
SCHWALLBACH " " " 27/6 " 50 "
HOMBURG " " " 40/- " 50 "
WILDUNGEN " " " 43/- " 50 "
ARLSBAD ALTS, 1/2-Bots., 20/- per Bot. 40/- per doz Bot. 40/- per doz



REGISTERED AT STATIONERS' HALL.

NORWAY BLOCK ICE

FROM FINEST LAKES IN CHRISTIANIA.

Professor Frankland's report with analysis:—"The Ice is exceedingly pure, and contains less foreign matter than any water with which I am acquainted in this country."

Original Blocks
(2 to 3 cwt. each) 2s. 0d. per cwt.
1 cwt. to 2 cwt. .. 2s. 6d. per cwt.
1 cwt. to 1 cwt. .. 1d. per lb.
Under 1 cwt. 1d. per lb.
Packing free. Utmost promptitude in despatch

W. B. HARRISON

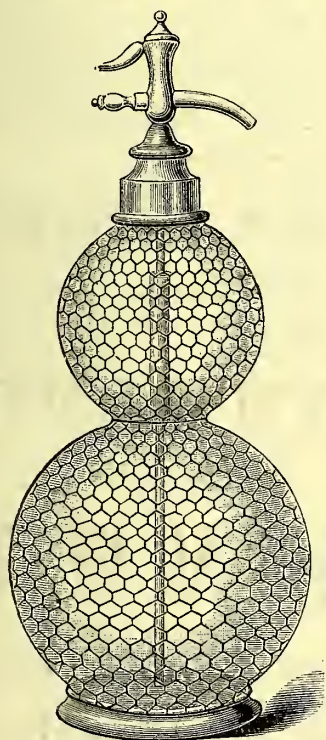
Importer of Ice and Mineral Waters,

6 BRIDGE ST., SUNDERLAND.

THE IDRIS BELTZOGENE.

Unequalled in Style and Finish.

PLANE OR WIRE COVERED.



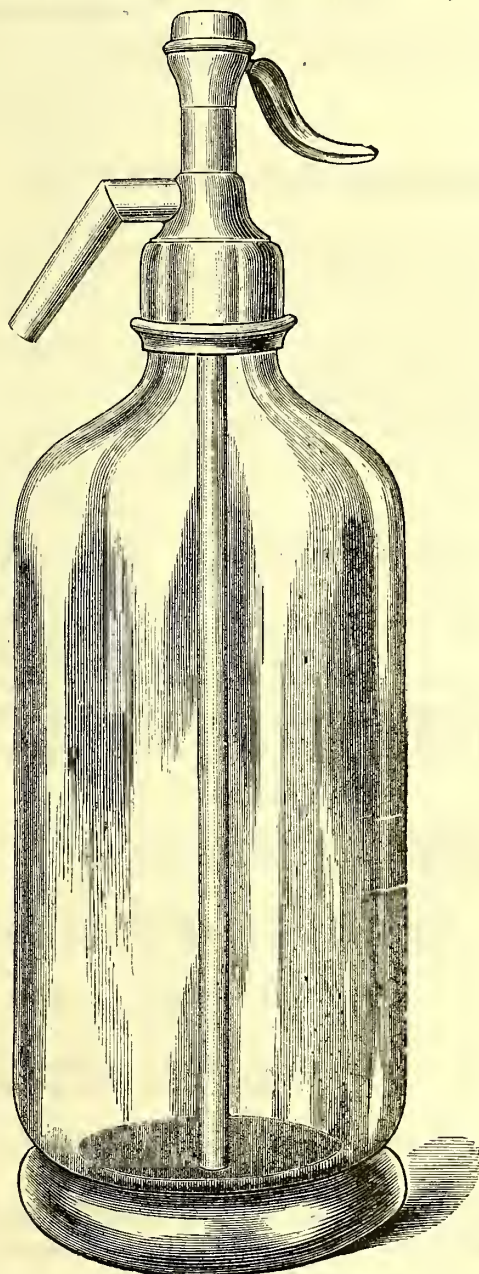
For Price List and Terms,

APPLY TO THE

IDRIS
MANUFACTURING COMPANY,
ASCHAM STREET,
LONDON, N.W.

THE IDRIS SYPHON

Is the best in the Market, combining the elegance of the French with the strength and superiority of English workmanship.



Intending purchasers should apply for samples and prices, before placing their orders, to the

IDRIS MANUFACTURING CO.,
Ascham Street, London, N.W.

Tops guaranteed to be made of Best English Tin and free from Lead.

BINGLEY'S SUPERIOR GINGER ALE,

AN AROMATIC AND NON-INTOXICATING STIMULANT.

Manufactured by a Special Process worked out by the Proprietor, by means of which the AROMATIC properties and TRUE DELICATE FLAVOUR OF JAMAICA GINGER are fully retained. It is confidently offered as a very superior article.

The following are a few of the opinions which have been expressed in reference to

BINGLEY'S GINGER ALE.

:O:

The Chemist and Druggist of January 15, 1883, says:—"We are bound to report most favourably. Very few makers have succeeded in so fully presenting the odour and aroma of Jamaica Ginger in a clear, bright, sparkling beverage."

The Midland Medical Miscellany of August, 1883, in a note referring to BINGLEY'S AERATED WATERS, says:—"We are particularly pleased with the Ginger Ale, which, as is not always the case, really presents the flavour of Ginger."

The British and Colonial Druggist, May, 1884:—"Mr. JOHN BINGLEY, F.C.S., Northampton, has submitted to us samples of his Ginger Ale, and has done but justice to the maker to state that we have never tasted better."

The London Medical Record, December 15, 1884, referring to BINGLEY'S GINGER ALE, states:—"The general excellence of the Ginger Ale as a non-alcoholic drink has been established to the satisfaction of the analyst. . . . BINGLEY'S GINGER ALE contains the true flavour of Jamaica Ginger."

Extract from a letter dated December 5, 1884, received from a Medical Gentleman in the West Indies, who had sent for a sample:—"Your supply of Ginger Ale came duly to hand. Upon trial I found it to be an excellent article, and as a beverage it will suit this climate of eternal summer all the year round. It is pleasant, grateful, and tonic; as useful in the sick room as on the dining-table. One of my patients, who had become fastidious, and could not relish either meat or drink, was persuaded to try one of your bottles of Ginger Ale (iced); after drinking it he smiled on his lips, rubbed his chest, and exclaimed, 'That Ginger Ale has just fit my stomach.' He wanted more, but unfortunately I could not supply it. I intend when making my next order to send for . . . cases. I believe it will sell well here."

MANUFACTURED BY

JOHN BINGLEY, ANALYTICAL CHEMIST, NORTHAMPTON

Specially prepared for exportation to warm climates.

All persons who are interested in such beverages, either for the Home or Export Trades, are earnestly invited to send for samples, which will be supplied GRATIS on application, either direct or through any English merchant.

CANTRELL & COCHRANE'S

CELEBRATED

**AROMATIC GINGER ALE,
SPARKLING MONTSERRAT,**

**"CLUB SODA," AND
MINERAL WATERS,**

As supplied to Her Majesty's Imperial Houses
of Parliament,

Have been Awarded TWENTY-THREE GOLD AND
PRIZE MEDALS at the various International
Exhibitions.

Goods for Export are specially prepared, and are guaranteed
to keep in any climate.

PRICES AND TERMS ON APPLICATION TO—

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APNEUMATIC

MINERAL WATER

SPECIALITIES:

GINGER ALE (AROMATIC).

ORANGE CHAMPAGNE.

FRUITY CHAMPAGNE.

SPARKLING PHOSPHORETT.

Made by an entirely New and Special Process,
SO THAT THEY IMPROVE BY KEEPING.

Trade List post free from the Manufactory,
LEAMINGTON.

THE INTERMITTENT"



Illustrated Catalogue of every speciality for the above Trades forwarded free.

TALBOT & CO.'S

HIGH-CLASS

MINERAL WATERS

OBTAINED THE HIGHEST AWARD



Great International Health Exhibition,
LONDON, 1884.

GINGER ALE,

Unrivalled for fine Aromatic Flavour.

Write for Samples for comparison, which is the most satisfactory way of testing.

GOODS SPECIALLY PREPARED FOR EXPORT.

Manufactory: GLOUCESTER.

PURVEYORS BY SPECIAL APPOINTMENT
TO HER MAJESTY THE QUEEN.

MUMBY'S

MINERAL WATERS

Are Perfectly Pure and of First-class Quality.

SODA WATER, POTASS WATER,
SELTZER WATER, TONIC WATER,
GINGER ALE, LEMONADE, &c.

IMPORTANT TESTIMONIAL.

H.M.S. "SERAPIS," Portsmouth, 25th Feb 1876.
Messrs. C. MUMBY & Co.,
Gentlemen,—The Soda Water supplied by you for the use of H.R.H. The PRINCE OF WALES on board H.M.S. "Serapis" was of excellent quality, kept in good condition, and gave great satisfaction to I.R. Highness, his suite, and the officers of the ship.

(Signed) THOMAS BRADBRIDGE, Paymaster.
T. W. SCADDAN, Chief Steward.

These Celebrated Waters can be supplied in
Syphons with Silver-plated Tops.

GOODS CARRIAGE PAID. PRICES ON APPLICATION.

34 THE HARD, PORTSMOUTH

London Agents — Walker & Moore, 17 Redcross Street.

JEWSBURY & BROWN

MANCHESTER

MINERAL WATERS,

PURE SODA, SELTZER, POTASH, LITHIA, &c.,
LEMONADE,
GINGER ALE, AND QUININE TONIC.

Prepared and Bottled specially for Export, and warranted to keep well.

Manufactured with the utmost care and by improved machinery, these productions are recommended for purity and excellence of quality by many leading members of the Medical Profession, and have for many years had a preference by the public; the flavour of the Lemonade and Ginger Ale being procured from the fresh Fruit and Finest Jamaica Ginger, they may be relied upon as furnishing delicious and satisfactory beverages, either for general use or specially for invalids.

The Soda Water is absolutely free from any metallic impregnation, and being by improved machinery highly charged with Carbonic Acid Gas, and each bottle containing a definite and unvarying proportion of Pure Carbonate of Soda, J. & B. have every confidence in inviting a trial from those who have not already patronised them.

The Seltzer, Potash, and Lithia Waters are prepared with the utmost exactitude and the purest ingredients.

The New Quinine Tonic furnishes a pleasant form for the administration of a most valuable restorative, and is refreshing and agreeable.

Ginger Ale (Aromatic) of superior quality, and strongly recommended as a Non-Alcoholic and warm stimulant beverage.

N.B.—Every Bottle is protected by a distinctive Label, with Name and Trade Mark, and each Cork is branded.

Counter Bills and Analytical Reports, with Agents' Names and Addresses, supplied when requested.

A CERTIFICATE OF MERIT, for superiority of quality, was awarded to Jewsbury & Brown at the Exhibition of Sanitary Appliances, at Owens College, Manchester, on the occasion of the Meeting of the British Medical Association, August, 1877.

JEWSBURY & BROWN, 44 Downing Street, 3 Grosvenor Street, and 113 Market Street, MANCHESTER.

WARD TYLER & CO.,

84 & 85 WHITECROSS ST.,
LONDON.

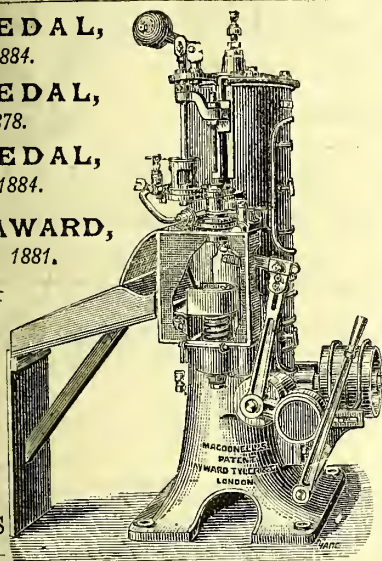
GOLD MEDAL,
LONDON, 1884.

GOLD MEDAL,
PARIS, 1878.

GOLD MEDAL,
CALCUTTA, 1884.

BEST AWARD,
MELBOURNE, 1881.

Most
Recent
Improvements
in all
Machinery for
Soda Waters



WILCOCK'S PATENT STEAM BOTTLER.

84 & 85 WHITECROSS STREET, LONDON.

SODA WATER MACHINE.

EASY TERMS.

CATALOGUE FREE.

WRITE TO

N. G. WILCOCKS,
BACK STREET, BATH.

MANUFACTORY:

BATH CITY BRASS FOUNDRY
AND IRONWORKS,
BECK STREET.
N. G. WILCOCKS,
BATH, SOMERSET,
ENGLAND



& F. J. TAYLOR'S

AERATED WATERS,

Newport Pagnel.

ESTABLISHED 1835.

POTASH, SELTZER, AERATED (without
Alkali), and LITHIA WATERS,
LEMONADE AND GINGER ALE.

is protected by a Label bearing the Signature
of the Firm.

Excellence of the Water certified by Analysis
by Professor ATTFIELD, Ph.D., F.C.S.

THE "LONDON-MADE" SYPHON BOTTLE

(TRADE REGISTERED).

Obtained the HIGHEST AWARD at the Inter-
national Health Exhibition, London, 1884.



NOTE GROOVE IN BASE (PATENTED).

The high reputation this bottle has achieved is due to the fact of its being in every particular the most perfect yet introduced; and when compared with others in the market it stands pre-eminent. It is most simple in its working parts, therefore the least liable to get out of order; it is the most easily opened, the lightest pressure on the handle being sufficient; it produces a more highly-charged gaseous water than is usually obtained from siphons; it compares most favourably in appearance with any, and the metal top being entirely free from lead, the prejudice against siphon drinks is at once removed, as the liquid passes over pure tin only.

All our Syphons are now fitted at the base with a groove, so that drips from the spout that run down the sides are prevented from soiling the table. See drawing.

NOTE.—Syphons made with our patent foot for collecting excess of liquid dripping from the spout after use are supplied at no extra charge, and will be found of great utility in preventing stains, &c., upon table linen. This is a desideratum long been wanting, particularly for private-house use. Send for sample; forwarded upon receipt of 2s.

Any name, crest, or trade-mark put on the glass by an improved acid process, at from 18s. to 24s. per gross. There is a three-fold advantage in this, as it forms a continual advertisement, is a great ornament, and a preventive of fraud. The plate for engraving costs extra from 5s. upwards, according to the artistic device required.

PRICES (WHITE, BLUE, GREEN, OR AMBER):—

	By the gross, per doz.	Less than 1 gross, per doz.
Quart size	£1 2 0	£1 4 0
Pint size	1 1 0	1 3 0
Half-pint, Pear shape	1 0 0	1 2 0
Octagonal vases, any colour (including Azure Blue)	1 4 0	1 6 0

Tops, nickel-plated, from 5s. 6d. per doz. extra. Tops, silver-plated and burnished from 9s. per doz. extra. A charge is made for packing, except when ordered in our patent bin cases (holding one dozen each, price 2s. 6d. each).

Special Prices and Terms to Large Buyers.

BARNETT & FOSTER,

MINERAL WATER ENGINEERS,

Manufacturing Chemists, and General Providers for the Aërated Water,
Wine, Beer, and Cyder Trades,

"Niagara Works," 26th Eagle Wharf Road, London, N.

GOLD MEDAL, LONDON.



SIX GOLD AND PRIZE MEDALS,

1884,

AWARDED TO

LORIMER & CO.,

HARGRAVE PARK ROAD,
LONDON, N.

TWO GOLD MEDALS, CALCUTTA



CHEMICALS, PHARMACEUTICAL PREPARATIONS, and FRUIT ESSENCES, bottled and in bulk for 1885

CITRATE OF IRON AND QUININE, SULPHATE QUININE, ETC. SOLUBLE ESSENCES. TINCTURES AND SPIRIT PREPARATIONS IN BOND, ETC.

Agents Wanted in every City for the sale of Lorimer's well-known Specialties—"Chemical Food," "Quinine Wine," "Quinine and Iron Tonic," "Cod Liver Oil," "Lime Juice Cordial," "Citrate of Magnesia," "Flavouring Essences," and "Fruit Syrups," the sale of which is certain and profitable.

C. W. FIELD, MANUFACTURING CHEMIST.

OFFERS:-

CAPSICINE

GINGERINE

SAPONINE

OIL OF CLOVES

ESSENCES.

FRUIT

AND

ETHERS

Address—Cambrian Mills, Wood Street, LIVERPOOL.

GEORGE OATES & CO., MESSINA, SICILY

MANUFACTURERS OF

ESSENTIAL OILS

PRIZE MEDAL MELBOURNE, 1880

References: MESSRS. BARING BROS. & CO., LONDON.

FRATELLI DE PASQUALE & CO.,

LARGO MUNIZIONE, MESSINA, SICILY,

MANUFACTURERS, ESTABLISHED ON THE VERY GROWTH PLACE, FOR THE FINEST

ESSENTIAL OILS

Of Lemon, Bergamot, Sweet and Bitter Orange. Recently Awarded at the Exhibitions of

CALTANISSETTA, 1879—A Gold Medal and 200 Liras for Invention of Machinery to the use of their Manufactory, and Silver Medal for Excellence of Produce.

MILAN, 1881—A Bronze Medal for Excellence of Produce.

MELBOURNE, 1881—A First Order of Merit Excellence of Produce.

MESSINA, 1882—A Gold Medal and 150 Liras for an ample set of Machines to the use of their Manufactory, and a Bronze Medal for Excellence of Produce.

A first trial order is quite sufficient to remain convinced of the Excellence of our Essences.

Samples and all particulars may be had from our Wholesale Agents—

SAM'L LAMBERT & CO., DRUG BROKERS, 132 Fenchurch St., LONDON

W. J. BUSH & CO.,

Distillers and Importers of

ESSENTIAL OILS AND FRUIT ESSENCES,

SOLUBLE ESSENCES FOR AERATED WATER

AND CORDIAL MANUFACTURERS.

W. J. B. & CO.'S "SPECIALITY" ESS. LEMON is double the strength of ordinary commercial qualities.

W. J. B. & CO. caution the Trade against the so-called soluble Essences now so frequently offered for sale, which are nothing more than mere tinctures, and, although offered at lower prices, cost five times as much in use, whilst imparting a strong medicated flavour.

The importance of our invention of Soluble Essences is clearly shown by the numerous imitators and copyers that have sprung up, and we must inform the TRADE that ours are the only GENUINE ORIGINAL SOLUBLE ESSENCES.

FRENCH CREAM GUM EXTRACT,

PROTECTED BY ROYAL LETTERS PATENT,

For producing a head of Creamy Richness upon all kinds of Syrups, Aerated Waters, Beers, Ales, Cider, Champagne, &c., 2s. 6d. per pound.

W. J. BUSH & CO. regret having to Caution the Trade against spurious imitations of this article, most of which being mere rubbish.

W. J. BUSH & CO.'S

ENGLISH DRAWN ESSENTIAL OILS.

OL. AMYGD. ESSENT. ANG.

„ AMYGD. „ (SINE
ACID. PRUSSIC.)

„ ANETHI ANG.

„ CARUI ANG.

„ CARYOPH. ANG.

„ CINNAM. VER. ANG.

OL. CUBEBAE ANG.

„ COPAIBAÆ ANG.

„ MYRISTICÆ ANG.

„ MENTH. PIP. MITCHAM

RECT.

„ SANTAL FLAV. ANG.

OL. LIMONIS (W. J. B. & CO.'S SPECIALITY).

20-23 ARTILLERY LANE, BISHOPSGATE, LONDON, E.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS,

FOR THE PRODUCTION OF
THE FINEST LEMONADE.

Added in the proportion of one fluid ounce to each gallon of syrup, the soluble essence imparts the most delicious flavour of the Lemon.
—The Chemist's Journal.



The Essence mixes well with water, and has a delicate flavour. The Lemonade made therewith has a far more delicate flavour than that generally met with.—
The Chemist and Druggist.

Trade Price, 8/6 per lb.; 12 lbs. and upwards, 8/.

PREPARED BY

W. HAY, Manufacturing Chemist,
BEVERLEY ROAD, HULL.

HAY'S GINGER CHAMPAGNE

CAN BE OBTAINED FROM THE SOLE AGENTS,

INGRAM & ROYLE

119 QUEEN VICTORIA STREET, LONDON E.C.
AND BATH BRIDGE, BRISTOL.

Retail Price, in Half Champagne Bottles, 5/6 per doz.

This SPARKLING, EXHILARATING, and REFRESHING DRINK, being far more agreeable in bouquet and flavour than the FINE CHAMPAGNE WINE, is, at the same time, unlike it, FREE from ALCOHOL. It is strongly recommended both for Juveniles and Adults, as the most Wholesome Stimulating Beverage that has hitherto been produced and should be in every household during all seasons of the year.

Samaritan Free Hospital, Lower Seymour St.,
Portman Square, Lond. W.

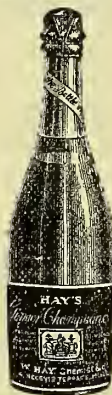
Dear Sir,—I have tried your Ginger Champagne which I find to be excellent, and I look upon it as a step in the right direction towards meeting a long felt want. Our Senior Physician, Dr. Hemmings, has also tried it, and is much pleased with it. I ought long ago to have had such a beverage, and believe that a great deal of drinking would have been prevented. I wish your effort much success.

I am, dear Sir, yours faithfully,
GEORGE SCUDAMORE, Secretary.

An excellent and most agreeable beverage.—
Lancet.

Made by Mr. Hay, of Hull, with his own SOLUBLE ESSENCE OF JAMAICA GINGER, and is as a PURE, WHOLESOME, STIMULATING, and ALCOHOLIC beverage.—*British Medical Journal*.

One of the most delicate and wholesome beverages in the market.—*Medical Press*.



SOLE MANUFACTURER

W. HAY, Chemist, &c., 4 Regent's Terrace, L.L.

INTERNATIONAL HEALTH EXHIBITION

MAIGNEN'S PATENT

"FILTRE RAPIDE"

GOLD MEDAL

FOR

WATER "FILTRE RAPIDE."

SILVER MEDAL

(HIGHEST AWARD)

FOR

Wine, Spirit, Beer, and Syrup

"FILTRE RAPIDE."

GOLD MEDAL

FOR

ARMY "FILTRE RAPIDE."

SILVER MEDAL

(HIGHEST AWARD)

FOR

WATER-SOFTENING Process for Boilers

(Saving Life in Workshop).

BRONZE MEDAL (HIGHEST AWARD) FOR

MAIGNEN'S Patent "ANTI-CALCAIRE" Powder

To SOFTEN WATER for WASHING.

Full particulars in Pamphlet, "Water, Preventable Disease, and Filtration," by P. A. MAIGNEN, 32 St. Mary-at-Elm, Eastcheap, London.

SILICATED CARBON FILTERS.

SYMPHON FILTERS FOR TRAVELLERS.

Means of these pure and per- wholesome water drunk from any or stream by immersing the herein and draw- ing water through be by suction.



No. 20.

used as a Syphon by placing it in a vessel of water, then draw- ing the water by the mouth, and allowing the flexible tube to hang over the side be- low the Filter. When once set in operation their action is con- tinuous.

cket Filter, 2½ inches diameter, in porcelain, with glass	s. d.
mouthpiece, in decorated metal-box	2 6
to, 3½ inches diameter, in best stoneware	5 0
igrant's, 5 inches diameter, with silver-plated tap	12 0
ket Filter, for carrying over shoulder, as supplied to the	
forces in Abyssinia and Zululand, and to the Ashantee	
and Egyptian Expeditions	3 6
No. nickel-plated, designed by Major Fraser, R.E., and specially	
recommended by the Horse Guards for Officers' kits	5 0

FILTERS.

TABLE FILTER,

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water



NO. 24.

to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

PRICES.

No. O, 2s. 6d.; A, 4s.; B, 5s. 6d.
Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.

DINING-ROOM FILTER,

No. 22.

WITH PATENT MOVEABLE BLOCK.

MADE IN MARBLED CHINA.

PRICES.

A ..	Two Gallons	35s.
B ..	Five Gallons	80s.

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.

REFRIGERATOR FILTER, NO. 25,

WITH PATENT MOVEABLE BLOCK.

Made in Porous Terra-Cotta Ware,

Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

AFFORDING A COOL DRAUGHT OF PURE WATER.

Price, with Silver-plated Tap 81s. 6d.
Capacity Two Gallons.

Specially adapted for Tropical Climates.



MAIN SUPPLY FILTER, NO. 40,

WITH PATENT MOVEABLE BLOCKS,

FOR

CISTERN

MINERAL WATER MANUFACTORIES,

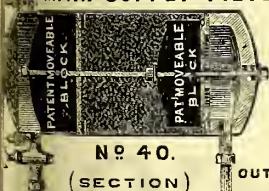
As used by Messrs. Schweppe, London, Liverpool, Glasgow, &c.; and most of the large makers.

Also for Schools, Hospitals, Mansions, &c.

PRICES.

For ¾-in. Pipes	£8 6s.
„ 1-in. Pipes	£9 9s.

SILICATED CARBON MAIN SUPPLY FILTER.



No. 40.

(SECTION)

OUTLET

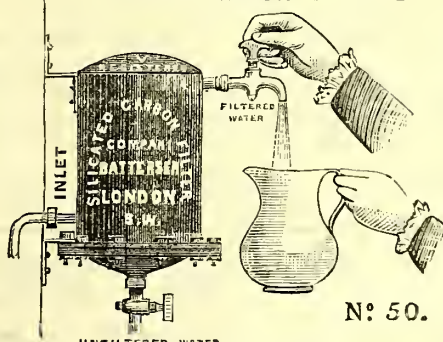
SENSING TAP

CONSTANT SUPPLY FILTER,

WITH PATENT MOVEABLE BLOCK.

SILICATED CARBON [TRADE MARK]

No. 50. (Registered.)



No. 50.

Complete, Price £3 3s. each.

These Filters require no attention from servants, as they are always filled and ready for use. The act of drawing Unfiltered Water cleanses the Filter, by washing away the impurities collected on the carbon.

FOR FULL PARTICULARS WRITE TO THE

SILICATED CARBON FILTER COMPANY,

CHURCH ROAD, BATTERSEA, LONDON, S.W.

Hunyadi János

CAUTION.—Circumstances which have come to the knowledge of Andreas Saxlehner, Buda Pest, Sole Proprietor of the Hunyadi Spring, compel him to WARN the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."

DOULTON & CO., LAMBETH, LONDON, S..

DOULTON'S MANGANOUS CARBON FILTERS (Dr. Bernays's Patent).

The Combination prepared under this Patent gives to the Charcoal its highest value as a

FILTERING MEDIUM.

The Filter is made in four movable parts—the body, the lining, the Manganous Carbon block, and the cover. By this means every portion of the Filter may be

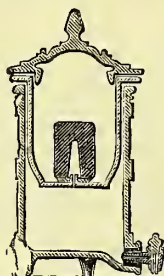
KEPT PERFECTLY CLEAN,

and the Manganous Carbon block may be changed as often as necessary WITHOUT PARTING WITH THE FILTER.

DOULTON'S IMPROVED GRANULAR CHARCOAL FILTER.

In addition to the bed of Granular prepared Charcoal, these Filters are fitted with a movable block of MANGANOUS CARBON in place of sponge. This arrangement, whilst acting as a screen for suspended matters, gives a double action to the power of the FILTERING MEDIA.

Any Description of Filter Refitted at Moderate Charge.



DOULTON & CO. also manufacture Boudoir or Table Filters, Pocket and Syphon Filters for Tourists' use, Manganous Carbon Self-Acting Cisterns, Refrigerator Filters, High Pressure Filters for manufacturing purposes, &c. May be had of all Dealers.—DOULTON & CO., Lambeth, London, S.

ESTABLISHED
1812

S. G. CLEMENTS & CO.

ESTABLISHED
1812.

Liquid Extract
of Annatto.

DRUG AND
OIL

MERCHANTS.



PRIME

RENNET.

SEED & DRUG
GRINDERS, IMPORTERS.

Butter
Colouring
in O

Drug, Chemical, and Seed Grinders. Importers of Flag, Seed, and Roll Annatto. Manufacturers of Liquid Extract of Annatto. Cake Annatto. Roll Annatto. Butter Colouring. Milk and Butter Preservation. Prime Rennet. Dyers' Chemicals. Dye Woods and Dye Stuffs. Aniline Colours.

THE NEWEST PRODUCTION FOR CHEESE-MAKING IS THE PRIME RENNET POWDER.

DRUG AND SPICE MILLS, LEWIN'S MEAD, BRISTOL

London Agents—BARCLAY & CO., and all Wholesale Druggists.

First Class Medal, New Zealand, 1882; First Prize Medal, New Zealand, 1883; Cork, 1884.

PHILLIPS & SONS' DANDELION COFFEE

Castle Square, SWANSEA; 34 Eastcheap, LONDON.

Note London Address, having no connection with a Retail Firm of same name. Established 1760.

FRY'S MALTED COCOA

(PATENTED).

A Combination of FRY'S Pure COCOA EXTRACT with

ALLEN & HANBURYS' CONCENTRATED EXTRACT OF MALT

J. S. FRY & SONS, BRISTOL AND LONDON.

CAUTION.

A. S. LLOYD'S EUXESIS,

FOR SHAVING WITHOUT SOAP, WATER, OR BRUSH.

GENUINE Euxesis bears the following distinctive marks:—

- 1.—The Name **AIMÉE LLOYD** on cap of tube.
- 2.—The words "Prepared only by his Widow" in **RED INK** across labels.

Manufactured only by AIMÉE LLOYD,

WIDOW OF A. S. LLOYD, formerly of 27 GLASSHOUSE STREET,

3 SPUR STREET, LEICESTER SQUARE, LONDON.

A. S. LLOYD'S EUXESIS,

For Shaving without Soap, Brush, or Water.

CAUTION.

The only Genuine has a yellow label printed **ONLY** in Black Ink, and bears the original address of the late inventor, "27 Glasshouse Street, Regent Street," the proprietors having purchased, under an administration suit, the Secret, Trade Mark, Goodwill, and Premises.

SOLE PROPRIETORS,

**R. HOVENDEN & SONS,
LONDON.**

M. A. CRAVEN & SON,

WHOLESALE AND EXPORT CONFECTIONERS,

MAKERS OF

Medicated Lozenges, Refined Liquorice, Jujubes, and every description of Confectionery,

IMPORTERS AND MANUFACTURERS OF LEMON, ORANGE, AND CITRON PEELS.

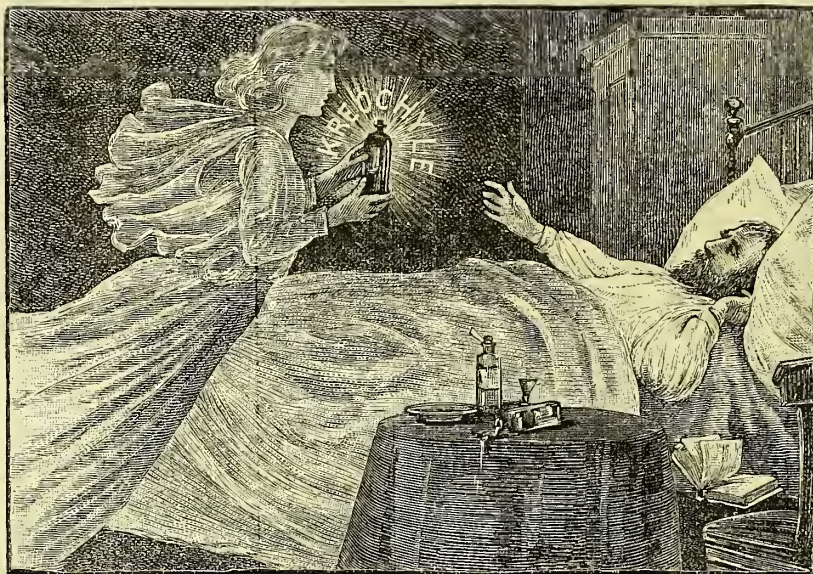
**CONFECTIONERY WORKS,
YORK.**

Lozenges of all descriptions made from Customers' private formulæ (or ingredients), and stamped with any name or device.

SPECIALITIES—Cough, Peppermint, Rose, Musk, Bouquet, Cachou, and all kinds of Medicated Lozenges.
ESTABLISHED 1843. PRICE LIST ON APPLICATION.

INDEX TO ADVERTISEMENTS,

PAGES 37 and 38.

**THE LANCET**

"A most concentrated and rich form of liquid food; contains large quantities of albumen."

BRITISH MEDICAL JOURNAL.

"Its administration has been attended with much benefit."

CROYDON GENERAL HOSPITAL.

"I have found it a most useful preparation in those cases where a nourishing and stimulating food is necessary."

BIRMINGHAM HOMEOPATHIC HOSPITAL.

"I find it is retained when other food is rejected."

ANDREW WILSON, Esq., F.R.S.E.

"Kreochoyle contains albumen and nitrogenous compounds in veritable proportions. Requiring no preparation, it possesses the immense advantage of always being ready for use. The effects of its administration are speedily observable in cases in which all other forms of nourishment have been rejected. One most beneficial property, that of rapid diffusion, characterises it. The administration of Kreochoyle relieves pain and wear until such time as other foods can be borne and digested. Those in want of a safe and satisfactory liquid food for any form of weakness or disease cannot do better than give Kreochoyle a trial."

KREOCHYLE

KREOCHYLE IS A PURE LIQUID MEAT, CONTAINING, IN ADDITION TO THE ORDINARY "MEAT EXTRACTIVES," THE WIFE OF THE SOLUBLE ALBUMEN OF THE MEAT IN A FORM SUCH THAT IT IS ABSOLUTELY SELF-DIGESTIVE.

FOOD AND
STIMULANT

BARFF & WIRE

FOR INVALIDS
AND INFANTS.

PRICES—Retail, 5/ per pint; 2/9 per $\frac{1}{2}$ pint;
1/6 per $\frac{1}{4}$ pint.

HAND-BILLS, SHOW-CARDS, AND SAMPLES SENT WITH
EVERY ORDER IF DESIRED.

LIQUID MEAT.

BY ROYAL LETTERS PATENT.

BARFF BORO-GLYCERIDE

FOOD PRESERVER.

FOR MEDICAL & SURGICAL PURPOSES.

THE TIMES, April 1, 1882.—"When the Solution is added to Cream, the latter undergoes no change in the hottest weather; and Cream thus prepared has been sent both to Zanzibar and to Jamaica, arriving sweet and good at its destination in either case."

"The Fowls and Beef preserved by Barff Boro-Glyceride were only used this last voyage, making a period of four and a half months; they were firm and perfectly sweet. Signed, P. F. PIM, Steward steam yacht *Ceylon*, October 13, 1884."

THE LANCET.—"Nothing can be better than the action of this compound."

Pamphlets, Samples, &c., sent with each order if desired.

PRICES—Retail, 5/ per lb.; 2/6, $\frac{1}{2}$ lb.; and 1/ sized bottle.

FOR PARTICULARS CONCERNING KREOCHYLE AND BARFF BORO-GLYCERIDE APPLY TO THE

KREOCHYLE COMPANY, 9 FARRINGTON ROAD, LONDON, E.C.
TO BE OBTAINED OF ALL WHOLESALE HOUSES.

CASH PRICE

8s. for 12½ GALLONS.

CASKS FREE.

School of Cookery, Crystal Palace, S.E.
January, 1883.

MR. PETER TYRER,
SIR.—I have been using the "Borough"
Ketchup, and am very pleased with it. Its
flavour is excellent, both for all kinds of
savoury dishes and Soups; and I most cer-
tainly should advise every cook and house-
keeper to use it, FOR I HAVE NEVER YET MET
ANY EQUAL.

MARIAN SMITHARD,
Lectress on Cookery.

MANUFACTORY—

10 LONG LANE, BOROUGH,
LONDON, S.E.

Branch Agency—115 West Nile Street, Glasgow.

DO NOT THROW MONEY AWAY
BUT WRITE
FOR A
FREE SAMPLE OF
Tyrer's
"BOROUGH"
Ketchup
SILVER MEDAL
LONDON.
SENT FREE
TO ANY ADDRESS

SEVEN INJUNCTIONS have been granted during the past few months.

CAUTION! "YORKSHIRE RELISH."

NOTICE IS HEREBY GIVEN that in several actions instituted by Messrs. GOODALL, BACKHOUSE & CO., of LEEDS, Injunctions have been recently granted by Judges of the Chancery Division of the High Court of Judicature, restraining several persons from using several Counterfeits of Messrs. GOODALL, BACKHOUSE & Co.'s labels, and in particular against the use of the words "YORKSHIRE RELISH." The sole and exclusive right to the use of which words having been finally established by the above Firm, they will take immediate proceedings against parties manufacturing or offering for sale Sauce under the above title, not being of the manufacture of Messrs. GOODALL, BACKHOUSE & Co.

Information may be given to the undersigned,

J. SEYMOUR SALAMAN,
12 KING STREET, CHEAPSIDE, LONDON,
Solicitor to the Trade Mark Protection Society.



DR. KOCHS' MEAT PEPTONES.

A New really Nutritious and Agreeable Food for Invalids, as well as for all persons in good health.

A solution of the long-sought scientific problem. The nutritious constituents of fresh meat peptonised and retaining the albumen, forming a product of the highest alimentary order, not liable to decompose, agreeable to the taste, invigorating, and instantly assimilable, without requiring the process of digestion. Used with the best results in the Hospitals of London, Paris, Berlin, Vienna, &c. Specially recommended for convalescents, and for sufferers from dyspepsia, poverty of blood, sudden faintness, &c. For further details, see THE LANCET of September 6th, 1884.

Sole Consignees—WIDENMANN, BROICHER & CO., 33 Lime St., London, E.C.

LEUBE-ROSENTHAL'S IMPROVED MEAT SOLUTION.

Prepared by R. STUETZ, Chemist, Successor to Dr. MIRUS, Jena, Germany.

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(Signed) CHAS. A. CAMERON,
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FIG. 2.

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New Certificates, 1/3 each extra.

Thermometers for special purposes made to order at a few days' notice. A large stock of Barometers
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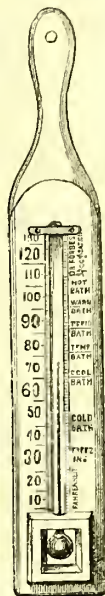
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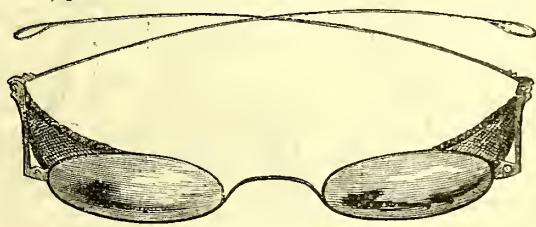
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Ditto ditto, and with Worked Glasses, 30/ per dozen.

Illustrated Price List of Spectacles on application.



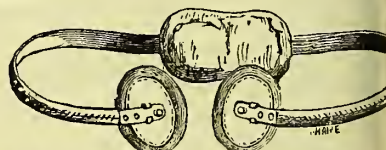
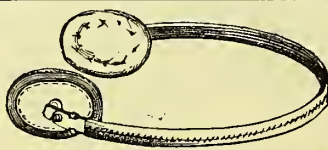
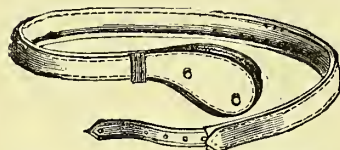
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Stockings .. per pair	£ s. d. 0 10 0	£ s. d. 0 15 0	£ s. d. 0 8 0	£ s. d. 0 7 0
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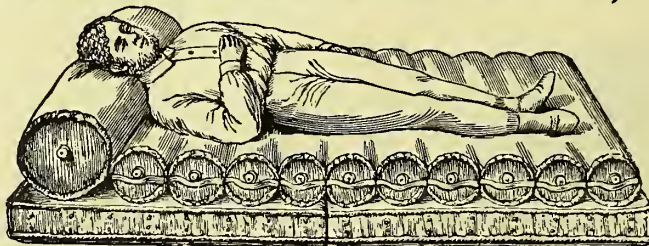
Prize Medals, Sanitary Congress, 1878; Industrial Exhibition, York, 1879; Certificate of Honour, Sanitary Congress, 1879; Brighton, 1881; International, 1881; Kensington, 1882.

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Consists of a series of separate and distinct cylinders, any diameter and suitable length, made of Waterproof material either for Water or Air, fitting into a case which keeps them side by side, but slightly apart.



ITS ADVANTAGES
OVER
ORDINARY WATER
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AIR BEDS ARE AS
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1. In cost it is less expensive.
2. It is warm and light, and well adapted for a camp or field-bed, being waterproof.
3. It is quickly filled and easily adjusted.
4. It admits of ventilation in the space between the tubes.
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6. By the addition of tubes it will raise one part of the body higher than the rest.
7. By the temporary removal of one or two tubes it affords room for the introduction of bed-pan.

8. It can be inclined to any angle (even when filled with water) to suit the condition of the patient.
9. It is free from noise and snoring, so disagreeable to the invalid on changing his position on a water-bed.
10. In case of injury to a tube it can be withdrawn, and a fresh one substituted at a trifling cost, and without loss of time; whereas the ordinary water-bed if injured in any part (from being in one compartment) is rendered useless.
11. In the treatment of insane or paralysed invalids who have no control over their evacuations, they cannot lie in a pool of wet, the fluid passing away between the tubes.

Digestive Ferments.

THE SERIES OF ARTICLES ON IMPROVED FORMS OF THE DIGESTIVE FERMENTS WHICH HAVE APPEARED IN THIS PAGE WILL SOON BE PUBLISHED IN PAMPHLET FORM. COPIES MAY BE OBTAINED FREE, UPON REQUEST.

ARTICLE III.

Extractum Pancreatis in

TYPHOID FEVER.*

BY FRANK C. WILSON, M.D.

Professor of Physiology in the Hospital College of Medicine, Louisville, Ky.

In typhoid fever, more than in any other disease, do the indications point clearly and emphatically to the most careful dietetic management of the case, from the beginning to the end of it. The debilitating effect of the continued fever, protracted through a period of four or six weeks, and sometimes even longer, must be combated in every possible way, and yet without adding to the danger of loading the intestines with undigested food, of itself a source of evil and discomfort. Only that which is absorbed and assimilated of real service to the system. In the enfeebled condition the digestive organs very little of the food taken into the stomach can or will be digested, but passes down through the intestinal tract in a constantly fermenting state, thus adding to the discomfort by the increasing flatus, and over the inflamed and ulcerated Peyer's patches, producing, possibly, hæmorrhage, or even death, by perforation. The great danger from this source has led some eminent physicians to advocate even total abstinence from food, confining the patient strictly to water, even for three or four weeks. If, however, food can be so thoroughly digested, before being taken into the stomach, that all will be readily absorbed and assimilated, leaving no residue, the indications will be fulfilled. Milk is the article of diet usually relied upon for feeding typhoid-fever patients, but even when the digestive organs are in a healthy condition it coagulates into a mass of curd as soon as it reaches the stomach. This hard mass as then to be digested and disintegrated before being absorbed. If this fails to be accomplished by reason of the small quantity or poor quality of the digestive fluids, the undigested mass passes down through the intestines—a constant source of annoyance and danger. This may all be avoided by digesting the milk with the Extractum Pancreatis (Fairchild).

Milk so treated cannot be coagulated by even the strongest acids, its casein being transformed into peptone and in condition to be at once absorbed and assimilated. There is noticeable a slight bitterness, to which the patient soon becomes accustomed, so that it is taken readily and produces no discomfort. Even this bitter taste may be avoided by stopping the process of digestion before it is entirely completed. It has been found by experiment that the objectionable taste is only developed when the casein is entirely peptonised. It is scarcely ever necessary to carry the artificial digestion quite so far, and when stopped at any point before completion the taste is perfectly natural. If immediately placed on ice it can be kept as long as simple undigested milk. The ferment of the pancreatic extract is held in a latent condition, and when taken into the intestinal canal may still further aid in the completion of the digestive process.

To avoid the possibility of the patient becoming tired of the same article of diet day after day, its form of administration may be varied in a number of ways. As the casein is peptonised, and cannot be coagulated by even the stronger

acids, the milk so prepared can be utilised in making milk-punch. This can be flavoured with lemon-juice or any other acid desired. Thickened with gelatine, sweetened and flavoured, it forms a delicious milk-jelly, suitable for convalescent patients and grateful to the taste.

During the past two years I have met with many instances in which the use of the Extractum Pancreatis has yielded the most gratifying results. Not alone in typhoid fever is it useful, but in all instances where the digestion is enfeebled, or where it is interfered with by the presence of ulcerated or inflamed surfaces, the process of peptonising the food will be found of service. In rectal alimentation its importance is manifest, the food so prepared being readily absorbed and appropriated without inconvenience or irritation. I have sustained patients with gastric ulcer entirely by nutrient enemata twelve or fourteen days. In this time the ulcer will be entirely healed, so as to allow the cautious administration of peptonised milk in gradually increasing quantity, until a full meal can be taken.

To Dr. ROBERTS, who first suggested the importance of peptonising the food, and to Fairchild, whose Extractum Pancreatis enables us to so readily and thoroughly accomplish it, the profession owes an everlasting debt of gratitude, echoed by many patients whose lives have been saved by its use.

Louisville, Ky.

The Value of Peptonised Milk

PREPARED WITH EXTRACTUM PANCREATIS.*

BY FRANCIS L. HAYNES, M.D., PHILADELPHIA.

I have used milk, artificially digested by pancreas ferments, in the following cases:—

1. Chronic intestinal catarrh of six months' duration in a child one year old. Marked wasting; rickets. Rapid recovery.
2. Chronic intestinal catarrh of seven months' duration in a child fifteen months old. Recovery in ten days, and rapid increase in weight.
3. Chronic gastro-intestinal catarrh (from birth), with acute catarrhal pneumonia, in a child one year old. The peptone agreed thoroughly with this patient, and the vomiting and purging ceased. The pneumonia continued, and destroyed life by exhaustion in one month.
4. Extreme emaciation and exhaustion in a child three weeks old. Rapid recovery. One month after, during very hot weather, cholera infantum and death.
5. Cholera infantum in a child two months old. The milk peptone was used as soon as the vomiting and purging had been checked. Rapid recovery.

The only other medication used in these cases was morphia, to check the bowels or to meet other indications.

In numerous cases of indigestion, intestinal catarrh, and other diseases in adults, I have used peptones, and frequently with benefit.

The preparation used is the "Extractum Pancreatis" (Fairchild).

The following formula is used, and the chemist is directed to furnish a scoop holding a scruple of the powder:—

Extractum pancreatis (Fairchild)	..	..	..	3j.
Sodii bicarbonatis	..	..	..	3ij.

M. et Sig. Add scoopful to a gill of water; mix with pint of fresh milk; keep this mixture at a temperature of 110° for two hours. Boil, place while hot in bottles, and keep on ice.

In the absence of a thermometer, the mother is directed to keep the milk so hot that she can barely hold some in the mouth.

The bottles used are beer-bottles, with patent air-tight rubber tops.

If the milk is to be used immediately, it is not necessary to boil and bottle it; but, if kept, it soon spoils.

Milk thus prepared has a bitter taste.

The directions for use are the same as those for ordinary milk.

The manufacturers supply a pamphlet containing much valuable information on this subject.

280 East Cumberland Street.

* Reprinted from THE AMERICAN PRACTITIONER.

* Reprinted from AM. JOURNAL OF OBSTETRICS.

Peptonised Milk in

GASTRIC AND INTESTINAL DISORDERS.

BY FRANK MORRISON, M.D.

My attention was first directed to the use of pancreatised fluids, chiefly milk, in the above-mentioned disorders, a few months since, while serving as one of the physicians to the Orphans' Asylum. At this institution the rule has been heretofore, as the matron informed me, for almost all of the bottle-fed infants to die within a few months, and often a few weeks, after admission from the digestive troubles incident to their unnatural mode of life. Up to within a short time this mortality has not been in any degree lessened by any of the various methods of treatment employed. To my predecessor, Dr. Henthorne, belongs all of whatever credit may be due for the introduction and use of the peptonised milk. Its benefit was at once apparent in the sudden reduction of the death-rate, so that it soon became the rule for infants to live, instead of to die. Upon assuming my duties at the asylum, I directed the continuation of Dr. Henthorne's plan of treatment, and extended it to embrace other conditions. Without a wearisome recital of the details of all the cases, I think I am justified in coming to the following conclusions:—

First, that peptonised milk is one of the best, if not the best, remedy for vomiting, whether coming from simple irritability of the stomach from some obscure cause, from a firm coagulation of the casein of the ingested milk, or, what may seem strange, even in inflammatory diseases of the stomach. As examples of the first class, I would bring forward those cases in which, in the absence of any sign of gastric inflammation, all substances taken into the stomach are immediately returned, and often with considerable force. *Among infants comparatively few cases of this description came under notice, but a considerable number were seen among children and adults recovering from acute diseases. In but one instance did it fail to relieve—the first case under my care—and that I lay to the worthlessness of the samples of pancreatin then on hand.* I trusted too implicitly in the knowledge of the nurse, who informed me that she had used it extensively, and that it was working all right (referring to the action of the pancreatin on the milk). I was present during one of the spells of vomiting a few days before the infant's death, and noticed some coagula in the vomited matter. This led to investigation,* and an immediate change in the sample employed, but, though relief was obtained for a few hours, the child died next day with a return of the trouble. As a most peculiar instance of its power, I may mention a case seen by me in connection with a physician a few miles out of town. The patient, a lady in the neighbourhood, fifty years of age, was seized with incessant vomiting, coming on after a slight surgical operation, and resisting all of the usual remedies, but yielding immediately and almost completely to the milk. After the death of the sufferer, which occurred from another cause, a post-mortem showed adhesion of the lower margin of the omentum to the left crural ring, at which point there had been a femoral hernia during life. The stomach had been displaced somewhat downward by this band, which was drawn so tightly as to encroach very materially upon the calibre of the transverse colon. I can offer no explanation of its mode of action in the foregoing cases. It could not have been by rendering the milk bland and unirritating alone, as in some of the cases it was impossible to retain even pure water. The second class—viz., those suffering from coagulation of the casein of the milk, and subsequent vomiting—were by far the most numerous, and the part played by the pancreatin in their relief was obvious. While I cannot speak of it too highly in the previous class, it is in these that we would expect to find it

most efficacious. I will not take the time to quote a list of cases familiar to all, but will say that where, in bottle-fed infants, the milk is rejected in a curdled condition some time after being taken, the addition of a good article of pancreatin to the milk will almost invariably relieve. In inflammation of the stomach, my experience, from the very nature of the case, must amount to nothing. But two instances came under notice. One, a man of forty-one years of age, had been sick with vomiting and burning pain in the stomach for several days. Nothing could be retained. Water, for which he craved incessantly, was swallowed only to be immediately vomited. Burning pain and tenderness in the epigastric region, the character of the vomiting, rise of temperature, and condition of the pulse, warranted, I think, my diagnosis of acute gastritis. After trying all the remedies of which I knew, such as ice, morphia, bismuth, alkalies, and the now fashionable infinitesimal doses of calomel, without effect, I fell back upon the use of the peptonised milk, solely for the relief of the vomiting. Its effect was complete and immediate. In another, which I was led to diagnose as gastric ulcer, the result was equally good. In the various diarrhoeas of infants, both inflammatory and non-inflammatory, it has given great satisfaction. So thoroughly am I convinced of its power that I feel as if I could check a diarrhoea with bismuth and peptonised milk as with the most approved doses of opium. In fact, since its introduction into the asylum, not a drop of paregoric or a particle of any astringent has to my knowledge been used in the treatment of infantile diarrhoeas or colics. In those cases of sudden cramps coming on immediately after eating, and followed by a free liquid evacuation, it has only to be tried to be recommended. In one rather numerous class of patients, on the other hand, it has been perfectly useless. I allude to that slow wasting away of the body, without diarrhoea, or any decided symptom, coming on in hand-raised children. One death occurred, and another is at the present time failing, so that, warned by previous experience, I am led to give an unfavourable prognosis. * * * *

PEPTONISED MILK AS A CURATIVE AGENT IN

Acute Dyspepsia.*

BY JOHN W. BRANNAN, A.B., M.D., OF COLORADO SPRINGS,
COLORADO.

Physicians are often baffled and discouraged in attempting to treat a stomach so disordered as to be absolutely intolerant of all food. The various drugs known as digestives are tried in turn, and the most easily assimilable food is given. Milk in small quantities, either alone or with the addition of lime-water, is often well borne, and in such cases a favourable result is merely a question of time. But in other cases the stomach, incapable of performing its functions, demands not simply digestible food, but food already digested.

Milk, by the process I am about to describe, can be digested sufficiently in one hour, or even less, to be readily taken up by the absorbent vessels of the body. Its taste, when thus prepared, is not at all disagreeable. Moreover, milk contains all the proximate principles necessary to the complete nutrition of the body. Of these principles, the sugar, water, and saline matters are already in a state fit for absorption. Milk-sugar, though not absolutely identical with grape-sugar, is closely allied to it, and, according to Pavy, behaves precisely like it in the alimentary canal. We have left then the casein and butter of the milk, the former to be converted into albuminose or peptone, the latter to be emulsified. The pancreatic juice is the only ferment in the body which combines the properties of changing albuminoids into peptones, starch into sugar, and of emulsifying fats. The *Extractum Pancreatis of Fairchild* is the preparation I have employed in the following manner:—Five grains of *Extractum Pancreatis* and 20 grains of bicarbonate of soda are dissolved in 4 oz. of tepid water.

* Reprinted from the BOSTON MEDICAL AND SURGICAL JOURNAL—A paper read before the El Paso County Medical Society.

* We urge upon physicians the importance of writing for "Extractum Pancreatis" (Fairchild) when they desire to use a reliable preparation of the pancreas ferments. The necessity for this is illustrated by the case cited by Dr. Morrison. Most of the "pancreatis" of the market are composed of over 90 per cent. of milk sugar—hence devoid of activity for digesting starch or albumens, &c.; indeed, they claim only to possess the property of emulsifying fats. If the indefinite word "pancreatin" is used, there is liability of substitution or error.

This is added to 1 pint of fresh milk, warmed to the temperature of the body, and the mixture is allowed to digest for about one hour at a temperature of 100° F. The milk, when ready, should have a slightly bitter taste, or, rather, after-taste. It is now raised to the boiling-point, strained, and placed on ice, ready for use. In my experiments I found that the casein of the milk was not completely peptonised, nor the fat entirely emulsified, until the digestion had proceeded for two hours or more. But the milk becomes very bitter and disagreeable to the taste after such prolonged digestion, and in practice one hour's digestion seems to give the best results. As will be seen from the cases detailed below, this length of time suffices to render the milk easy of assimilation.

CASE 1.—E. A.—, a child of nine years of age, is not very strong, but has a fair digestion, as a rule, though with a tendency to constipation. In consequence of a succession of colds, the child's strength became much reduced, and at the time of my first visit subacute, passing into acute, dyspepsia had developed. The symptoms were nausea and vomiting, and epigastric pain on taking food. After trying a very simple diet and various digestives without good effect, peptonised milk was given as the sole food. All dyspeptic symptoms ceased at once, and after two days of this diet other articles of food were, one by one, permitted to be eaten, and were well borne. In five days from the beginning of the attack the child's digestion was apparently perfectly restored, though she had not yet recovered her usual strength. There was marked constipation in this case, which was relieved by seidlitz powders.

CASE 2 is that of Miss B.—, a young woman of twenty-two, far advanced in consumption. Her digestion has always been rather weak. On February 10, 1883, the patient complained of occasional nausea and vomiting, and also of a troublesome diarrhoea. The vomiting was checked for some time by milk and lime-water, and the diarrhoea controlled by lead and opium. On February 23 the vomiting grew much worse; pepsine, lactopeptine, ingluvin, &c., were all tried, but to no purpose. At the same time the diarrhoea became almost uncontrollable, there being six or eight loose dejections daily. The stomach rejected all food, even of the simplest nature. Peptonised milk was now given, and was well borne by the stomach for two days, though the taste of the milk was disagreeable to the patient. There was no diarrhoea during these two days, although no astringent medicines were used. As the patient now began to have a strong repugnance to the peptonised milk, it was discontinued, and a return to ordinary food was gradually made. During the month following her digestion remained very good, and but little medicine was required for the bowels. On March 21 there was again a little vomiting, accompanied with quite severe diarrhoea. Peptonised milk was at once ordered, but mutton and chicken broths were also allowed. The diarrhoea was checked with chalk and laudanum. Again the stomach responded to the milk treatment, though I had but little hope that it would. At the present time the patient's digestion remains fairly good, in spite of the steady advance of the disease in her lungs.

CASE 3.—On March 1, 1883, I was called to Mrs. C.—, a lady two months along in her second pregnancy. Her digestion had never been very strong. She was now suffering from almost constant nausea, which for a time was controlled by lactopeptine and ingluvin, and a careful regulation of the diet. After a time these remedies failed of effect, and all kinds of food were vomited, though the patient maintained the recumbent position constantly. Previous to the advent of the nausea the patient had been taking six or seven glasses of ordinary milk daily, but now she could not bear even a very small quantity, having a great distaste to it. Peptonised milk was now given, to the exclusion of all other forms of nourishment. The vomiting ceased almost immediately, and after a day or two there was no more nausea. Rest in bed was still maintained for three days; the patient was then able to get up and go about with no further dyspeptic symptoms. After five days of peptonised milk diet, raw beefsteak was given once daily, and in a few days more the peptonised milk was given up entirely. There has been no return of the dyspepsia. She considers her digestion to be better now than it has been for years.

As bearing upon the question of the rapidity of absorption of peptonised milk, it may be well to note one incident in the history of this case. On the first day of the milk treatment the patient had left her bed for some reason twenty minutes after taking a full glass of the prepared milk. The movement was followed by the vomiting of about a tablespoonful of greenish fluid. There was not a trace in it of the milk so recently swallowed. According to physiologists, two hours is the time taken by ordinary milk in digestion.

There are a few points to which I shall refer briefly in closing.

It is essential that the physician in charge, or at least someone more intelligent than the ordinary servant, should superintend the first preparation of the milk.

Though I have dwelt especially upon the utility of peptonised milk in acute dyspepsia, I am convinced that it would also be of service in many cases of chronic dyspepsia. The patient in Case 3 had been a sufferer from greater or less dyspepsia for years. Less than one week of peptonised milk diet not only relieved all her acute symptoms, but also improved her digestion to such an extent that she can now eat and assimilate all kinds of food.

From its readiness of absorption peptonised milk ought to be well fitted for rectal injection. When used for this purpose its digestion might with advantage be carried much further than when prepared for the stomach.

NOTES ON

Peptonised Milk.

We beg to offer a few practical points in regard to the employment of the *pancreas ferment* in the preparation of *peptonised milk*. These are founded upon such suggestions as have been afforded by extensive correspondence and communication with the profession upon this subject, as well as upon our own personal experience.

1st. It seems that the caseine, in what may be termed *partially* peptonised milk, has undergone sufficient change to adapt it for assimilation in the great majority of cases.

2nd. It is only when the milk—its caseine—has been *entirely* converted into *peptone* that any *bitter* taste is developed; this is the flavour of the "milk peptone."

3rd. The degree of digestion is very simply regulated by the *time* during which the milk is subjected to the *action* of the *Extractum Pancreatis*.

4th. As a *general rule*, place the bottle containing the milk and the "*peptonising powder*" in a vessel of hot water for half an hour.

5th. Now, at the desired point of digestion, something must be done to *stop further digestive action*.

6th. It is much better to use ice, or immerse the bottle in cold water, for this purpose. The cold temperature effectually suspends action of the digestive ferments, but this is permitted to be resumed when again subjected to warmth, as in the *stomach*.

7th. *Boiling* permanently stops action by killing the digestive principle, but it tends to develop a cooked and disagreeable flavour.

FOR BOTTLE-FED INFANTS.

8th. *Partially* Peptonised Milk is the best, most rational substitute for woman's milk, for regular feeding to the infant; as by the action of the *Extractum Pancreatis* (*Fairchild*) the *excess* of caseine is overcome by conversion into *peptone*, and formation of *hard curds* thus rendered impossible.

Skill and success in this, as in every other process, come with experience. Physicians can arrange with local chemists to peptonise milk in cases where it is inconvenient for their patients to perform the operation.

We will forward *pamphlet* giving explicit information upon the subject in all details, "direction slips" for the *guidance of patients*, and trial specimens of the *Extractum Pancreatis*, Peptonising Powders and Tabloids free to hospitals and members of the profession upon request.

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See "CHEMIST AND DRUGGIST," December 15th, 1874.

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A Government "Poisons Bill," under the charge of the Lord President of the Privy Council (Lord Carlingford), was put down for second reading in the House of Lords on Thursday evening last (March 12). But "some delay having occurred in printing the Bill," the second reading has been deferred till Thursday next, March 19.

MEDICINE STAMPS.

In the House of Commons, on Thursday last, the 12th inst., Dr. CAMERON, M.P., in putting a question hereon, said: I beg to ask Mr. Chancellor of the Exchequer if he has yet received from the Board of Inland Revenue those reports on the Medicine Stamp Tax, which, in the House of Commons, on August 7, he undertook to "study with care"; and, if, so what action he proposes taking in the matter.

Mr. CHILDERS said, in reply: Yes, sir, I have considered the reports about the Medicine Stamp Tax by the Inland

Revenue Board, and have consulted with my noble friend the President of the Council, and I am much obliged to my honourable friend the member for Glasgow for giving me some papers on the subject. We have under consideration a Bill or Bills dealing with the question, but I cannot say whether any action will be taken during the present Session.

Mr. Warton has given notice of a motion on the subject of patent medicines for Tuesday next, March 17.

The proposed new by-laws of the Pharmaceutical Society were to have been read at the last Council meeting for the third and last time previous to submitting them to a special meeting of the Society. But the reading was postponed for a month in consequence of some questions arising as to the position of candidates who might fail at the examinations prior to the new regulations coming into force.

At the Minor examination in London in February there were 113 candidates, of whom 41 passed.

Dr. Hugo Müller, F.R.S., is nominated as President of the Chemical Society for the ensuing year.

The Council of the Pharmaceutical Society of Ireland have issued a circular inviting pharmacists and apothecaries to take shares in a "more or less speculative" enterprise, namely, the establishment of a school of pharmacy in Dublin. They estimate the capital required at 1,000/.

Several legal points of interest have come forward. A transfer agent sued a chemist to whom he had given some particulars of a business for sale for commission on the amount the latter had paid for it. The agent's order to view contained a stipulation which, he contended, created such liability, but the purchaser's receipt of that "order to view" was disputed. Verdict was given for the chemist.—A county court judge has decided that a firm of aerated-water makers must surrender without compensation some syphons they held bearing the trade-mark of another firm on proof being given by the latter that they always lent and did not sell their syphons.

The Board of Inland Revenue favour us with a communication respecting the sale under the medicine stamp of vinous preparations not sufficiently medicated (see page 152), and in our Correspondence section will be found items concerning the liability to stamp duty of Dutch drops and corn plasters.

The Victorian Pharmaceutical Society have met with a curious check in prosecuting offenders against their Sale of Poisons Act. They proceeded against a Chinaman for illegal sale of opium; the opium was sold in the Chinaman's shop by an assistant, but counsel for the defendant called for proof of agency, and the magistrate dismissed the case for want of sufficient evidence on that point. The Society have appealed.

Under the head of the "Chemists' Retail," on pages 132, 133, 134, are given formulæ and suggestions for putting up the following articles:—Blood-purifying Tea, Floral or Parlour Incense, Bretfeld Spirit, Cough or Pectoral Powders, Cough Syrup, Pectoral Tea, Cachous Aromatises, Perfumed Carbolic Acid, Cholera Drops, Carmin, Spirit of Pines (a disinfectant), Cosmetic Powders, and Eau de Javelle (for bleaching linen).

CORNER FOR STUDENTS.

CONDUCTED BY RICHARD J. MOSS, F.C.S.

QUALITATIVE ANALYSIS

THE subject of the next exercise in qualitative analysis is to be a mixture of salts. It is to be submitted to a thorough systematic examination, designed to detect all its constituents and to demonstrate the absence of other substances. A complete report of the analysis is to be furnished, giving a list of the metals and of the acidulous radicles detected, and distinguishing those that may be regarded as accidental impurities.

Applications for portions of the mixture will be received up to March 20, and the samples will be forwarded on the 25th.

Students' papers will be received up to April 15.

REPORTS.

The mixture of salts which formed the subject of the last exercise consisted of:—

	Parts
Silver nitrate	1.7
Lead acetate	37.9
Potassium tartrate	37.1
Sodium carbonate	21.2

The quantities may appear strange, but it will be found that they are simple fractions of the molecular weight of each salt. The calculated composition of 100 parts of the mixture is:—

Ag	1.09
Pb	21.03
K	7.93
Na	9.35
NO ₃ .. .. .	.63
C ₂ H ₃ O ₂	12.00
C ₄ H ₃ O ₆	30.29
CO ₃	12.19
H ₂ O	5.49
	100.00

The analysis of such a mixture presents several difficulties, some of which are rather too formidable for beginners to overcome. Contributors who find their names lower down in the list than they expected must not be discouraged, for, though their results may have been unsatisfactory, they have gained experience and knowledge that will lead to greater success in the future.

The total number of reports sent in was 27. Comparatively few succeeded in detecting all the constituents of the mixture. The failures are summarised in the following table:—

NO ₃	23
C ₂ H ₃ O ₂	22
Ag	19
K	10
C ₄ H ₃ O ₆	9
Na	5
Pb	3
CO ₃	2

Each of our contributors can form an estimate of the comparative merits of his work by observing the position in this list of the constituents that he failed to detect. It should be borne in mind that in awarding marks for analyses the supposed detection of substances not in the mixture is, of course, taken into consideration. No doubt it would interest

students to learn what methods proved most successful in the detection of the constituents present in small quantity, but it is not easy to give this information, as it is not so much the particular method as the intelligence employed in the application of it that ensures success. The nitric radicle, for example, was detected by some by means of sulphuric acid and ferrous sulphate, and by others by means of sulphuric acid and copper; but for everyone who succeeded, several failed. It is therefore clearly not the method that constitutes the chief difference between good and bad work. The reports that take the best places in the list are clearly the result of careful and thoughtful work. When the analysis presents any serious difficulty, a good result is not to be obtained without exhausting every source of information. We find, accordingly, that a report ending with accurate conclusions generally begins with an exhaustive examination in the dry way. The student who does not care to take much trouble usually omits this part of the work altogether.

PRIZES

The First Prize for the best analysis has been awarded to T. S. ADAIR, 80 Osmarton Street, Derby.

The Second Prize has been awarded to E. F. MILLER, 18 Norwich Road, Ipswich.

Marks Awarded for Analyses.

T. S. Adair (first prize) ..	85	J. B.	60
E. F. Miller (second prize) ..	83	W. J. Hoyten	60
"Nemo"	80	"Podophyllin"	40
E. W. P.	80	"Oswestry"	30
"Wisp"	78	T. G. J.	30
A. W. Morvell	75	G. J. W.	30
W. H. Cockle	70	"Sus"	25
L. Ough	70	F. R. Bower	25
A. Latchmore	70	J. Hindle	25
"Catalysis"	65	"Mel"	20
"Doubtful"	65	G. W. Harrison	20
"Inconnu"	65	"L'Esperance"	20
"Renew"	65	A. G.	15
		E. S.	10

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

..* All communications should include the names and addresses of the writers.

H. S.—It is not necessary to give quantitative results. In referring to the analysis we give the composition by weight for the information of contributors who take an interest in learning what quantities they have been operating upon.

E. W. P.—Any pharmaceutical student can compete.

F. S. Rix.—Your application was quite right. A good knowledge of the work referred to ought to suffice, but such a knowledge is not to be acquired by mere reading.

A. Humphreys.—When sulphuretted hydrogen is required on a small scale, and only occasionally, it is best to employ the simplest apparatus, instead of attempting to use any of the contrivances for a continuous supply. A small flask or hottle with a bent tube attached by means of a cork generally suffices.

Wisp.—The apparent evidence of cobalt obtained in the preliminary examination is not consistent with your subsequent results. The blue of cobalt is generally very evenly diffused in the borax bead.

A. W. Morvell.—The quantity of nitric acid was so small as to make its detection, under the circumstances, difficult. The effect observed with the ferrous sulphate was due to acetic acid.

W. H. Cockle.—You gave sufficient detail of your work. It must have been obvious that hydrochloric acid dissolved something, and that it produced a very marked change. A more extensive preliminary examination

It would have been desirable. It is a great matter in dealing with such a complex mixture to learn all you can about it before proceeding with the systematic analysis in the wet way.

connu.—Although the quantity of silver was small, there was far too little residue insoluble in hydrochloric acid to be passed over without trying to ascertain what it was.

B.—You observed a blackening when the powder was heated, but your results offer no explanation of this. Your examination for acids does not take into consideration the possible presence of the common organic acids. So far as the metals were concerned your work was very fair.

odophyllin.—It is probable that your supposed barium precipitate was due to lead, and, if so, you must have used the preceding group reagents in sufficient quantity.

suestry.—You ought to try what quantity of potassium you can detect in the presence of a given quantity of sodium by the aid of your blue glass. It is always well to use the platinum chloride test, though you may think your results quite satisfactory without it.

G. J.—There was clearly some great experimental error in testing the character of the evolved gas. You should try a similar experiment with a small quantity of a carbonate and find out the defect.

Pharmacalia.

THE ARGUMENT FOR THE CURRICULUM.

THE records of our examinations are disheartening and disastrous. It would serve no good purpose to quote figures which would apply only to some special date; the fact stands out that the number of failures are out of proportion to the average successes gained. That they are altogether out of proportion is a nearer statement of the truth.

Without discussing the broad question of examination and education, no one can deny that somewhere in the present system there is a flaw, and that teaching and results are not in harmony. Those best acquainted with student life will be the most willing to concede that for this condition of affairs the young men are not wholly responsible. The tares grow with the wheat, and the dross alloys the gold, and bad students are present with the good. Some youths come to London for amusement, and treat their allotted time as a kind of spree, glad to escape from a too-rigorous home discipline; others are led astray; yet a vast majority, who care little, perhaps, for knowledge on its own account, are as anxious to pass and obtain official qualification as their parents and guardians can desire.

There is no fighting against the stern reality of an examination; there it is, and those who do not pass it cannot enter upon their vocation. The regulations concerning this matter are framed in wisdom and in kindness; in wisdom, or pharmacy, which directly concerns the public health, should not be handed over to the incompetent; in kindness, or a candidate is compelled to be so well prepared that his after success becomes a certainty.

Some there are who are born students, and to whom the very acquirement of knowledge is a delight. They would succeed under all circumstances, and attain excellence under any system. These men are few, exceptional, and outside the general subject, and we cannot expect this high standard from the average run of candidates. If we do so, we shall be disappointed, and it is vain to be always insisting on an ideal state of culture.

Dealing with hard facts, we see that at each recurring examination the results would warrant an argument either against the diligence of the candidates or against the method of teaching employed, or against the system of examination as now pursued. Little ingenuity would be required to take a strong position in support of such an argument with regard equally to these three divisions of the subject.

The utmost forbearance and delicacy would be wanted to discuss the details, but the discussion would start from the one same point—that examination alone has not proved a satisfactory method of promoting the interests of pharmacy.

Our great London Hospital Schools are fully aware of the difficulties of the situation, and they have taken effectual measures to provide for the better training of those who commit themselves to their care.

They have an established curriculum under official authority; but, in addition to lectures and practical demonstration, the tutorial plan, not as a nominal institution, but as an energetic personal reality, is carried out. One amongst the professors, specially chosen for the purpose, makes it his business to see that each student positively understands, and is able to reproduce, what he has formally learnt in class. One individual undertakes the whole range of subjects, and adds his private explanation on all points concerned. Moreover, he supplements the public courses with a variety of minor information, which necessarily must, to a large extent, be imperfectly conveyed by the appointed lecture.

Nor does his task end here, for his counsel as to management of health and mode of study is quite as important as his more technical directions.

Secondly, a test examination is introduced preparatory to the official ordeal. The Professors unite in drawing up papers, each on his own subject, strictly in accordance with the kind of knowledge which a candidate will be compelled to show. In this manner they can judge how far a student may or may not run a chance of a successful issue, and he is advised accordingly. So personal is the matter that when a candidate is deficient they "will not sign him up," that being the correct phrase.

As we would be content to have our young men know pharmacy in the splendid way in which the modern physician knows medicine, we may be content also to copy the example of the profession in being personally interested in the welfare of our students. And for the examiners—if we may allude to such august individuals; if, in Virgilian language, it be lawful to appease the gods with words—we would ask whether they might not somewhat temper the keen edge of judgment, and on occasion make allowance when a sense of justice will permit. At this Eastertide we would venture to submit to them the old instruction—"Mind not high things, but condescend to men of low estate."

MOUNTING MICROSCOPIC SPECIMENS.

Dr. W. J. Gray informed the Microscopical Society that some years ago he tried balsam of tolu for mounting specimens, but found that it was open to objection on account of the formation of crystals. Mr. C. H. Kain, who recommended its use, has tried it again, and the slides are already full of crystals. The objection, therefore, is serious.

TOUGH FILTERING-PAPER.

Mr. E. E. H. Francis communicated a most interesting paper to the Chemical Society "On Toughened Filter-paper," which, if it fulfils the statement made concerning it, will be a great boon to operators. Filter-paper is recommended to be immersed in nitric acid, rel. den. 1.42, and to be washed with water. It is then remarkably toughened, the product being pervious to liquids, and quite different to the parchment-paper made by means of sulphuric acid. It can be washed like a piece of linen. So treated it contracts in size, and the ash is diminished, the weight is slightly reduced, and it contains no nitrogen. The toughened paper can be used with the vacuum-pump in ordinary funnels, without extra support, and fits sufficiently close to prevent undue access of air, which is not the case with parchment-paper.

An admirable way of preparing filters is also suggested: dip only the apex of the folded paper into nitric acid, and then wash with water; the weak part is thus effectually toughened.

SCIENCE TEACHING IN WALES.

The laboratories of the New University College of North Wales, at Bangor, were opened last February by Sir William Thomson, in the presence of a large and representative assembly. After an address from the Mayor and Corporation, Sir William said that there was no reason why they should not have a university for North Wales. Such a step had been frequently proposed, but it was now only that definite action had been taken towards that end. Their institution might be a university, or one of a number of federated colleges; the name was immaterial so long as it did the work desired. Decentralisation is one of the signs which mark our age; many years must elapse before the prestige of our two great universities will permit the successful establishment of new shrines of learning. One paramount reason exists in the memories of high scholarship, and the wonderful associations that are inseparably connected with the older foundations. But science, as apart from literature, has no local habitat, and it will flourish wherever rightly planted. It is surely time that centres should be multiplied, and they must prosper, for throughout England there are willing students and well-qualified instructors.

TOUGHENED GLASS.

Mr. Frederick Siemens, at the Society of Arts, has severely criticised the invention by M. De la Bastie, called "toughened glass." It bade fair at one time to come into extensive use for chemical and dispensing purposes.

The author stated in his paper on what he terms "Tempered Glass" that the French process was not a real manufacturing process, but an addition to known methods of glass-making. Articles had to be annealed first, and thereafter to be heated to such a degree as to render them soft; they were then immersed in a bath of heated oil maintained at a temperature of from 350° to 400° C. without evaporation. Articles so prepared were liable to burst suddenly into small fragments, either spontaneously or by sudden shock.

The author's own process consists in cooling the glass, not in proportion to its surface, but to its volume or capacity for heat. A sheet of glass of uniform thickness, having been heated uniformly to a sufficient degree, must be cooled on the surfaces of its two parallel sides, leaving the edges uncooled. The manufacture of hard glass depends, therefore, on the principle of uniform heating and cooling. The author has now made hardened glass at the Dresden Glass-works for six years; the output has steadily increased more than 50 per cent. annually, from 6000*l*. value in the first year, until last year it amounted to over 7,000*l*.

Manufacturing details were subjoined, and specimens of finished work submitted for examination.

SHAKE BEFORE TAKING.—A correspondent from Coshocton, Ohio, sends us the following:—

Doctor—"Well, how is your ague now?"

Patient—"Worse and worse. I've had the shakes awfully every day."

"I can't understand that. Did you take the medicine I prescribed?"

"Yes, but it did no good. Do you know, doctor, I think that medicine might do good if I took it before the shakes come on instead of after."

"Why, of course; that is what I directed."

"It did not say so on the bottle."

"Consum those druggists! What was on the bottle?"

"Shake before taking."

The Pharmaceutical Council.

THE monthly meeting of the Pharmaceutical Council was held on March 4, Mr. Michael Carteighe, President, in the chair. The members of Council absent were Messrs. Bottle, Woolley, and Young.

THE CONVERSAZIONE.

The PRESIDENT read a letter from the authorities of the South Kensington Museum intimating that, under certain regulations, the Museum would be lent for the usual *conversazione* in May.

THE CONGRESS AND THE CONFERENCE.

The PRESIDENT explained that the Executive of the Pharmaceutical Conference had found it impossible to change the date of their meeting at Aberdeen, and referred to a communication from the Secretary of the Brussels Congress of similar purport to one which we quote from elsewhere. With a little activity and smartness, he said it would be quite possible to attend both gatherings. Mr. Butt said a steamer leaves Antwerp every Saturday for Leith, and the Vice-President hoped full information as to means of transit would be published in good time.

RESTORED TO THE REGISTER.

Edwin Price, Union Street, Dowlais.

Stephen Nobbs Stevens, 3 St. Peter's Road, Great Yarmouth.

ADDED TO THE REGISTER.

Henry Allen, 34 Delorme Street, Fulham, London, S.W.
Samuel Robinson, 401 Alfreton Road, Nottingham.

THE NEW BY-LAWS.

On this occasion it was proposed to read the new by-laws for the third and last time by the Council, but some questions having been raised as to the case of candidates who might fail to pass prior to the new regulations coming into force, it was resolved to postpone the third reading for a month in order to take time for consideration.

INVESTMENTS.

The Finance Committee reported that it had been arranged to purchase two properties which would yield nearly 4 per cent. on the outlay. Their report was adopted.

BENEVOLENT FUND.

The grants recommended by the Committee were as follows:—One of 15*l*. to the widow (aged 37) of a member and subscriber; one of 10*l*. to the widow of a member (aged 51); one of 10*l*. to a former member suffering from chronic illness who had had ten previous grants of like amount; and one of 10*l*. to the widow of a registered chemist and druggist who had had five previous grants. Two applications had been adjourned for further inquiries. These recommendations were agreed to.

Mr. BUTT brought forward a few statistics concerning the relief granted, showing that during the past year the Committee had considered 64 cases, 33 old ones, and 31 new ones. Of these 20 were from members or their widows, and 41 from persons who had not been connected with the Society. He said the proportion of those applying who were not connected with the Society, and the relief they received, was about 2 to 1.

Several members hoped these facts would encourage subscriptions from persons outside the Society. Mr. Williams said it was gratifying that so few persons connected with the Society had been obliged to apply for assistance, which had been mainly afforded to their brethren in the trade who were perhaps not as well off as those who joined the Society.

A letter was read from Mr. Frederick Barron, 10 Cambridge Terrace, Regent's Park, enclosing a cheque for 265 guineas to the Benevolent Fund, which, with his previous donations, raised the total amount of his gifts to 300 guineas. Mr. Barron added, "I am satisfied that much good is being done by the Fund, and I trust that it will continue to be well supported by the trade generally."

special vote of thanks was passed to Mr. Barron for his handsome donation.

THE MUSEUM.

The following gifts to the museum were reported by the Library, Museum, &c., Committee:—
Specimens of spurious cubeba (*Daphnidium cubeba*), from Messrs. Wright, Layman & Umney, Messrs. T. Christy & Co., Messrs. Harker, Stagg & Moss.

Specimens of cocaine, and of the citrate, hydrochlorate, bromide, and salicylate of the same alkaloid, from Mr. Berck.

A living specimen of the aloe yielding Cape aloes at Bethelsdorp, from Messrs. B. G. Lennon & Co.

A specimen of cinchonamine bark and bark of *Trechlospermum* from Messrs. T. Christy & Co.

A specimen of the Chinese insect-wax *in situ* on a twig of *Meinuschinensis*, and candles coated with the insect-wax in China; also a dried specimen in fruit of *Ligustrum* for the herbarium, from the Director, Royal Gardens, Kew.

A specimen of pituri in the form used by the natives of Australia; fruit and seeds of *Sterculia quadridens*; leaves and seeds of *Eucalyptus Stieglitziana*, from Mr. F. M. Bailey, F.R.S., Colonial Botanist, Brisbane.

A specimen of hæmatein-ammonia, from Mr. W. H. Ince.

THE FEBRUARY EXAMINATIONS.

A report was submitted showing that at the examinations in February 18 to 26, out of 15 candidates for the Major 7 passed, while out of 113 candidates for the Minor 41 passed.

THE ANNUAL MEETING

was fixed for May 20, and the annual report was entrusted to the Library Committee.

RESIGNATION OF AN EXAMINER.

A letter was read from Mr. Charles Ekin, tendering his resignation as a member of the Board of Examiners. A resolution expressing high appreciation of his services was passed unanimously.

THE CURRICULUM.

A resolution was sent in from the Liverpool Chemists' Trade Association, passed at a meeting of the committee on February 26:—"That whilst approving of the alteration in the by-laws, it is the opinion of this meeting that the number of lectures and the laboratory practice required in the proposed curriculum are greater than absolutely necessary."

Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on March 4.

Present, the President, Mr. J. E. Brunker, M.A., in the chair; Mr. H. N. Draper, the vice-president; Dr. Collins, Dr. Montgomery, Messrs. Hodgson, Grindley, and Hayes.

A letter was received from Mr. Charles Marshall, 49 Dawson Street, Dublin, asking leave to present himself for the final examination under exceptional circumstances. The application was rejected as being opposed to the by-laws of the Society.

On the motion of Dr. COLLINS, seconded by Mr. GRINDLEY, the standing orders were suspended, and

Mr. HAYES proposed, and Dr. MONTGOMERY seconded, a resolution that the present examiners of the Society—namely, Mr. John W. Moore, Dr. George F. Duffey, Professor Edmund Davy, and Mr. Charles Evans, M.P.S.I.—be re-elected for the remainder of the present year up to November 3.

THE PRESIDENT reported that the Education Committee, to whom the question of the proposed establishment of a School of Pharmacy in connection with the Society had been referred, had met and agreed to a circular which had been sent to all the licentiates of the Society. He (the President) desired to correct an inaccurate statement which he made at the last monthly meeting of the Council. On that occasion he said that the School of Pharmacy at Bloomsbury Square had no connection with the Pharmaceutical Society of Great

Britain. He had learned that that school was under the control of its Council, by whom the Professors were appointed, and a sum of 100*l.* a year out of its funds was paid to endow each chair.

The following is the circular referred to by the President:—

Pharmaceutical Society of Ireland.

11 Harecourt Street, February 17, 1885.

DEAR SIR,—Representations have been made to the Council of the Pharmaceutical Society by licentiates of that body, as well as by young men who intend presenting themselves for its examination, as to the advisability of forming a School of Pharmacy in connection with the Society. The Council warmly sympathise with such a scheme, but have no funds available for the purpose of starting it; and, even if they had such funds at their disposal, would not feel themselves justified in investing them in what must be, more or less, a speculative project. It has, therefore, been suggested to form a limited liability company, with a capital of 1,000*l.*, in 200 5*l.* shares, and a committee has been appointed to bring the matter under the notice of the pharmacists and apothecaries of Ireland, with a view to enlisting their sympathy with and support of the project. There is no doubt that such a school, in which evening instruction would be given at moderate charges in practical chemistry and materia medica, would supply a want much felt; and it is thought that its prestige as being intimately connected with the Society would induce a considerable number of students to resort to it. I shall be obliged by your informing me whether you will be disposed to co-operate in this useful work.

I am, dear sir, faithfully yours,

J. E. BRUNKER,

President Pharmaceutical Society of Ireland.

A donation was received from the Pharmacy Board of Victoria of a copy of their Pharmaceutical Register for 1884.

Some financial business having been disposed of, the Council adjourned.

Provincial Reports.

BIRMINGHAM.

Notes written for THE CHEMIST AND DRUGGIST.

MR. H. BOUCHER, for nine years employed in the warehouses of Messrs. Southall Brothers and Barclay, has been appointed representative for Birmingham and surrounding districts for Messrs. Lofthouse & Saltmer, wholesale druggists, drysalts, and sundrymen, Hull.

A chemist with a business in a poor but populous neighbourhood informs us that during the last five years he has sold over the counter upwards of 12,000 pink powders for infants teething and children's ailments. They are retailed 1*d.* each, or three for 2*d.*

The following sub-leader appeared in the columns of a local daily paper:—"Bankruptcy without Shame.—The public examination of George Hull, drysalter and druggist, of 77 Smallbrook Street, heard before the Registrar of the Birmingham County Court, yesterday (February 13), revealed circumstances in connection with the bankrupt's affairs which must have excited the pity of his heaviest creditor. He had been in business for nearly forty years, and during that time had never had a writ or anything of the kind issued against him. On the contrary, his business flourished, and he was accumulating capital until he was induced to advance 7,200*l.* to enable a son-in-law to become a partner in an ironworks. This is the story of scores of bankruptcies in Birmingham, where, more than in any other town, men seem to be actuated by goodness of heart rather than by coolness of head. The creditors were so well satisfied with Mr. Hull's straightforward conduct and reputation that they unhesitatingly accepted 6*s.* in the pound, and they will no doubt join us in hoping that this Birmingham tradesman of the good old type will live long enough to retrieve his fortunes. May we never have to record a bankruptcy in which the debtor has less cause to feel ashamed!"

The recent visit of Professor Redwood to this town was the occasion of a pleasing incident. When the secretary of the Association went to pay the hotel expenses, &c., incurred he was surprised to be told they were all paid; also, when a cheque was forwarded to the Professor for his railway expenses, it was returned with a very kind letter. Interest

in the newly-formed Association could not have been more thoughtfully and practically shown.

It is rumoured that a wholesale chemist, well known in this district and the Midlands, and an active officer in connection with the Chemists' Trade Association, contemplates disposing of his business and retiring into private life. The name of a chemist who has lately come into the town is mentioned as probably being one of the successors.

On the night of February 14 the premises of Mr. Hedges, chemist, 13 Dale End, were broken into. Fortunately the money had been taken from the shop. Very few articles seemed to have been removed, although the burglars were undisturbed by the police and got clear away. Mr. Hedges was the first chemist in the town that started opposition to the stores when they first made their unwelcome appearance here. His business increasing his shop was enlarged to make room for customers. "Hedges" is as well known in the town and district as "Hodder," of Bristol; "Lewis," of Manchester, or "Wand," of Leicester.

Whilst transacting business with a chemist in the town I was witness to a most curious and unexpected experiment. A customer came into his shop and asked for three-pennyworth of white arsenic, two-pennyworth of chloride of lime, and two-pennyworth of soft soap. The lime and arsenic to be mixed together, so that half could be used for one room and the remainder for another room, for the purpose of ridding them of fleas. The customer would call again in about ten minutes. The chemist mixed 4 oz. arsenic and 6 oz. of lime with an old steel knife on a piece of common paper, labelled it poison, and placed it aside. After a few minutes a slight report, with a violent effervescing noise, was heard in the vicinity of the parcel, and immediately the shop was filled with a dense greyish-white smoke of the most choking and irritating properties, which made us withdraw for a breath of fresh air; as soon as possible a large thick duster was thrown over the parcel, it was carried out to the back, and some water thrown upon it, which at once killed it. It was some minutes before the shop was cleared of smoke, and we were able to stay in it. Text-books are silent on such a mixture. Whether it was a case of chemical affinity or combustion, perhaps some of your analytical competitors may be able to inform us. In mixing a fresh lot the arsenic was mixed with the soap and the lime put by itself.

Chemists of Birmingham and surrounding districts say they want a good local drug-sundry house, any special or out-of-the-way article not being obtainable here, and having to be procured from London or Liverpool. The delay in waiting before it is to hand is a very serious inconvenience, as the article required is generally urgently wanted. Old chemists here will remember "Atlee," of Broad Street, who, having obtained a patent for a special kind of tap, disposed of his small sundry business to Mr. Thonger, who at that time had brought out a precautionary poison label, which not being well taken up the sundry part was sold under the hammer. We have the sons of the late Mr. R. Tomlinson, St. Paul's Square, but they are more general shopfitters than druggists' sundriesmen. Pare Brothers, late of Burlington Passage, were the next in the field, but the retiring modesty of the active partner, Mr. H. B. Pare, and his dislike of personally soliciting orders were so well known, that ultimate success could not be expected. Bayly, of Macdonald Street, the introducer of carded goods, notably his penny dyes, which were "household words," was well known in the Midlands, and but for an unfortunate occurrence would have been as well known now. Of recent years we may mention the Brothers Woolf, but surgical instruments and such like they do not stock. Miss M. J. Nicholson, who succeeded G. W. Bayly, did not meet the needs of chemists. Evans, Sons & Co., of Liverpool, have a sample-room here, of some sundries, especially of their own proprietary goods. But there seems to be an opening for one of the large sundry houses to keep a good general stock.

PRESENTATION TO A LOCAL CHEMIST.—On the 3rd inst. the newly-erected parish offices were formally declared open by the chairman of the Board of Guardians (Mr. W. Price, pharmaceutical chemist, Bromsgrove Street) in the presence of a considerable number of residents. Mr. Stout, on behalf of the Building Committee, the architect, and the builders, presented to Mr. Price as a *souvenir* of the occasion a heavy

gold and silver key, on one side of which was a representation in enamel of the Borough Arms, and on the reverse a figure of Charity, in relief, on gold.

Mr. C. J. Woodward, of the Birmingham and Midland Institute, writes to contradict the report mentioned in a column last month to the effect that he was about to special classes for chemists' assistants. The Institute says, is always open for students, and its chemical classes include many chemists' assistants. "If an extension of classes in any special direction were desired by the pharmacists of the town, I am sure the Council would gladly consider any suggestions offered, but, as for 'competition' opposition, such an idea is foreign to the traditions of Birmingham and Midland Institute."

Mr. Woodward adds :—

"I may, perhaps, here be allowed to say where I feel difficulty in reference to a high standard of scientific education for chemists' assistants. It is simply the want of time. To go through the excellent course of instruction suggested by Professor Redwood in his recent address demands an amount of time which cannot be given so long as chemists' shops are kept open ten or twelve hours a day. It is not remarkable and gratifying to find in many cases how students have overcome difficulties in the way of attendance at the classes; but because it is possible for a few to overcome difficulties in their career it is not fair to impose the difficulties on the many. One of the first reforms wanted secure chemists' assistants with the scientific qualification proposed by Professor Redwood is to reduce the hours assistants are required behind the counter. If it were made compulsory upon the master apothecary under penalty of disqualification to release his assistants, say at 6.30 or even 7 o'clock, the opportunities which offer in all large towns for evening instruction would be available, and, as I believe, would be fully used."

DUBLIN.

Special Correspondence.

A LIMITED LIABILITY SCHOOL OF PHARMACY.—A circular has been issued by the President of the Pharmaceutical Society of Ireland to the pharmacists and apothecaries in Ireland, suggesting and calling for support in the formation of a limited liability company for the purpose of establishing a School of Pharmacy in connection with the Society. The step is stated to have been suggested by the licentiates of that body as well as by young men who intend presenting themselves for its examination. The Council warmly sympathise with the scheme, but have no funds available for such purpose, and if they had funds they would not feel themselves justified in investing them in what must be a "more or less" speculative undertaking. The capital proposed for the undertaking is put down at 1,000*l.*, in 200 5*l.* shares. The President is of opinion that such a school, in which evening instruction would be given at moderate charges in practical chemistry and materia medica (botany is not mentioned) would supply a much-felt want, and that the fact of its being connected with the Society (that is, having the warm sympathy of the Council) would add to its prestige, and induce a considerable number of students to resort to it. It is not stated whether the Council intend allowing the use of their premises, utensils, &c., for the "more or less speculative" project. The selection of professors and arrangement of fees are matters for future consideration.

DESTRUCTIVE FIRE IN A MEDICAL ESTABLISHMENT.—Early on the morning of March 6 a fire of a destructive character occurred at the establishment of Mr. J. J. Harrison, Licentiate of the Apothecaries' Hall, Dublin. Owing to timely warning by a passer-by the inmates (eleven in number) escaped in their night-dresses. The fire-brigade were quickly on the spot. It is supposed that some embers left in the fire-grate caused the fire. A more complete gutting cannot be imagined; the only stock not destroyed were the bottles containing nitric acid and hydrochloric acid. Scarcely a vestige of the fittings remained. Mr. Harrison, unfortunately, was not insured. He estimates his damage at 250*l.* The premises were insured by the landlord; beyond the woodwork, however, there is not much damage done.

HER FIRE occurred in Dublin on the 7th inst., at the establishment of Mr. William Gore, 172 Thomas Street. The fire originated in the oil and colour department at the end of the shop, where was stored a considerable quantity of petroleum and paraffin and other oils, paints, and other goods of an inflammable nature. For a considerable time the flames raged with great fierceness. The fire brigade quickly on the spot, and by dint of much hard work prevented its spreading to the adjoining buildings. The entire stock estimated to be worth about 500*l.*, was destroyed. The amount of loss is fully covered by insurance.

During the week ending February 28 twenty-one cattle, at 288*l.*, affected by pleuro-pneumonia, were destroyed in Dublin. Compensation to the amount of 216*l.* was paid.

EDINBURGH.

MR JOHN R. HILL has been appointed apothecary and dispenser of pharmacy to the Edinburgh Royal Dispensary. His abilities as a practical pharmacist are well known, and his recent article on "How to Study Materia Medica" attests his success as a teacher.

EXETER.

DEATH OF AN EXETER CHEMIST.—Mr. Hooper, coroner for Exeter, investigated on March 11 the circumstances attending the death of John Joseph Blackmore, a chemist, who for several years past has carried on business in Fore Street, and whose death occurred on the previous day. According to the evidence, for some time past the deceased had been suffering from nervous depression. He had also been physically weak, though not recently under medical treatment. Last summer he was attended by Dr. Budd, and at that time was suffering from an acute state of mania resulting from an indulgence in alcohol. He was exceedingly nervous and excitable, but his tendencies were then of a homicidal rather than a suicidal character. It was found necessary to place him under constant surveillance. On Monday night last he was more than usually depressed, and complained during the night of a pain in his head. On Tuesday morning his wife noticed that he looked very ill, and on returning to him after five minutes' absence observed that there was something seriously wrong with him. A neighbour was called in and brandy poured into his throat, but he gradually lost strength and died in a few minutes. In the course of a post-mortem examination the doctor found strong traces of prussic acid, and there was no room to doubt that death had been caused by poisoning. Subsequent investigation in the shop led to the discovery that a bottle of prussic acid had that morning been opened, and about two drachms of the liquid had been taken from it. For some months the deceased had been a constant abstainer, and in Dr. Budd's opinion the result of the alcohol he had taken last summer might have affected his mind and produced the low state of mind of which he had been complaining.—After hearing the evidence the jury returned a verdict of "Suicide whilst in a state of temporary insanity."

LANDPORT.

CONDITION OF TRADE.—A correspondent sends us the following:—There is a general complaint of bad trade and business being cut down. I notice one chemist goes in for flower-bulbs, seeds, &c., and seems to be doing a good trade in the line; but the chief sign of the times is the addition of ironmongery and brooms and brushes to the business of several chemists. One gentleman (a pharmaceutical chemist) has four or five shops, at each of which ironmongery, door-mats, brushes, lamps, &c., as well as oils and colours, are dispensed on one side, while experienced druggists (*vide advertisement*) retail patents and other goods, and also dispense prescriptions at the opposite counter. A specialty seems to be a box of seidlitz powders (Howard's) for sixpence. Another chemist is, no doubt, making a fortune by retailing windowfuls of sixpenny feedings for threepence, and a dispensing chemist in a good neighbourhood goes in for photographs of celebrities, cheap

magnifying-glasses, electric appliances, and a good show of curling-paper, cheap. If the pharmaceutical chemist has to eke out a living by selling ironmongery, &c., what a satire it is on the demand for increased education!

LIVERPOOL.

Special Correspondence

I HAVE to commence my report again this month with the announcement of another burglary upon a wholesale firm in the City. On the night of the 6th inst., the premises of Messrs. Clay, Dod & Co., at 52 St. Anne Street, were broken into by burglars, who effected an entrance through a skylight in the roof, and thence made their way into the warehouses and offices. The latter they carefully ransacked, breaking open every drawer; fortunately they were but poorly rewarded for their labour, as they were only able to find a few pounds in the petty-cash keeper's desk. Strange to say they left intact the large stocks of quinine, morphia, musk, otto, and other valuable drugs to which they had gained a free access.

It is to be hoped that by publishing this as well as the account of the similar attempt last month upon Messrs. Evans, Sons & Co.'s premises, which it will be noticed was carried out in precisely the same manner and with a like result, other wholesale firms will be put upon their guard.

Last month I had to regret the utter indifference of the trade at large in this city upon the Education question; since then, however, Liverpool has bestirred itself somewhat. The Liverpool Chemists' Association were first in the field with a very able paper from Dr. Symes; then followed the Liverpool Trade Association with a special meeting of the committee held on the 26th ult., to consider the new by-laws. At neither of these meetings do the supporters of the new curriculum appear to have had it all their own way, for at the first, although no resolution was taken (it being a paper read), Mr. J. S. Ward, in proposing a vote of thanks to Dr. Symes, criticised the syllabus of the proposed curriculum, contending that it was far more severe than there is any real necessity for, further that there is much contained therein that the chemist and druggist cannot possibly make use of in the ordinary routine of his business, and consequently that it was unwise to thus voluntarily impose an extra burden upon ourselves, for which there is no necessity, and which will be of no special benefit to any one.

At the other meeting, the following resolution, which is much to the same effect, was proposed and carried, viz.:—

"That whilst approving of the alteration in the by-laws, it is the opinion of this meeting that the number of lectures and the laboratory practice required in the proposed curriculum are greater than absolutely necessary."

I notice in the *British Medical Journal* of the 28th ult., that Mr. Jas. P. Hocken, son of Mr. Hocken, chemist, of Old Hall Street, and secretary to the Liverpool Chemists' Trade Association, was successful in passing the final examination for the L.S.A. degree, February 19. Mr. Hocken was a student at Charing Cross Hospital.

During the past month two deaths have occurred among Liverpool chemists, viz., on the 26th ult., of Mr. Francis J. Barnes, who was a son of the late Mr. Barnes, of Preston, and was for several years in business for himself in Upper Parliament Street, in this city—he died at the early age of thirty-four years, and has left a widow and two children; and, on the 14th ult., of Mr. Bamford, who was the second son of the late Mr. Bamford, surgeon, of Chorley, and for many years assistant with Mr. Flint, of the Adelphi Pharmacy, by whom he was very highly esteemed. He died at about the age of forty years, after a very short illness, and has left a widow and three children.

During the past month vegetation has made considerable progress; this is made especially evident by a visit to the Liverpool Botanic Gardens, where are to be seen the following plants in bloom, all of which represent respectively some of the natural orders included in the "curriculum" of a pharmaceutical education, viz.:—*Daphne mezereum*, N. O. Thymelacææ, with its groups of (two or three) sessile purple flowers, which open before the leaf buds, although the latter are developed before the flowering is over; *Crocus luteus* and other

species, N. O. Iridaceæ, about which the trifid-tubular stigmas should be noticed, as they convey a very good idea of the appearance "saffron" (the stigma and top of the style of *crocus sativa*) should present when placed in water; *Galanthus nivalis* with its keeled leaves and solitary drooping flowers, N. O. Amaryllidaceæ; *Scilla bifolia*, N. O. Liliaceæ, with its racemes of blue flowers; *Primula vulgaris*, N. O. Primulaceæ; *Cheiranthus cheiri* (wall-flower), N. O. Crucifereæ, with its bracteate racemes, cruciate corolla, and tetradynamous stamens; *Saxifraga cordifolia*, N. O. Saxifragaceæ, a very hardy plant, abundant upon the rockeries of the gardens. And in addition to these the student will observe *Aconitum napellus* and *Colchicum autumnale*, both of which are sending forth their spring leaves.

OLDHAM

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—On February 26 Mr. S. Marlor, of Lees, read an interesting paper on "Alchemy." After giving some account of the observations of Paracelsus, Lully, and others, Mr. Marlor remarked:—"Satisfied with our own superior knowledge, we are apt to smile and wonder at the credulity of the ancient professors of alchemy, and forget that there is much to be yet discovered, and that the coming twentieth century may witness the same self-satisfied smile of our successors at our modern ideas, almost perfect though they may appear to us; and that, although they (the alchemists) were unsuccessful in their endeavours to obtain the philosopher's stone and elixir of life, they made discoveries which, when we consider the general superstitious ignorance of the ages in which they were made, call forth our deep admiration, and all the more so when we remember that each one was a step nearer the great modern science of chemistry."

SHEFFIELD.

THE PHARMACEUTICAL AND CHEMICAL SOCIETY'S ANNUAL SUPPER.

The members met at the Freemasons' Hall on March 4, when an excellent supper was served. Mr. J. Preston, president, occupied the chair, and proposed the usual loyal toasts, which were heartily responded to.

Mr. J. J. Jervis proposed the toast of "The President," who, he said, had done more for the Society than any man who had filled the office before him. He had devoted himself especially to looking after and aiding the education of the younger members, and in that work he had thoroughly succeeded.

The President was very cordially received on rising to respond. He said he looked forward to Mr. Newsholme succeeding him in the presidential chair with great pleasure. It was true that while he had held office he had had the education of the rising portion of their confraternity mainly at heart, and he knew that Mr. Newsholme fully shared in his own earnest desire to carry on that work. It had been his aim that Sheffield should be worthy of its position, and that it should be the centre for the education of the rising pharmacists, not only in the town, but in the neighbourhood. (Renewed cheers.) Although the aim he had had in view had not been fully realised, yet it had been so to a very great extent; and he hoped at no distant date they would have an educational institute in Sheffield, if not equal to any one in London, at least second to none in the provinces.

Mr. J. T. DOBB proposed, amidst loud applause, the "Pharmaceutical Society of Great Britain," and, after referring to the jealousy that once existed between that society and the chemists and druggists, said "now the olive branch had begun to bud, and now they could sit down together and smoke the pipe of peace."

Mr. WARD (local secretary of the Pharmaceutical Society), in responding, referred to the proposed curriculum of the students, and said the object of it was to enable a youth to go through a course in something like three years, in preparation for his final examination. He hoped Sheffield would have all this curriculum at its own door. He saw no reason why that should not be so. The Pharmaceutical Society was ready to help them, and would give them a grant annually if they would only prove that they were in earnest.

The "Sheffield Pharmaceutical and Chemical Society" was

proposed by Mr. TOMLINSON, of Manchester, and responded to by Mr. FURNESS.

The toast list closed with that of the "Visitors," which was given by Mr. ELLINOR and responded to by Mr. H. N. ON. Several songs were sung, and a most enjoyable evening was spent.

DEATH OF A CHEMIST AND DRUGGIST FROM HYDROPHOBIA.—The Sheffield Coroner held an inquiry on Feb. 21 into the death of Richard Rainforth, chemist and druggist, Alderson Road, who had died two days previously from the effects of a bite by a collie dog. The evidence showed that it was a clear case of hydrophobia. The deceased was aware that he was suffering from that malady, for when it was proposed to call in a physician he said, "I know what this is, and all the doctors in the world cannot cure me, I am bound to die, and it is only throwing money away." The owner of the dog stated that Mr. Rainforth, after examining the animal, remarked, "Oh, it's all right; it's only suffering from a little constitutional disturbance." The dog almost immediately jumped up and bit him in the cheek. It was at once secured in the kennel and shot. Witness sucked the wound on deceased's cheek, and went with him to the dispensary to have it cauterised. The jury returned a verdict that the deceased died from hydrophobia caused by the bite of a dog.

ST. ANDREWS, N.B.

AN UNREGISTERED DENTAL SURGEON.—In the City Sheriff Court, on 6th inst., Alexander Ross French, formerly a confectioner in Dundee, and now residing in St. Andrews, was charged with a contravention of the Dentists Act, 1878. The libel set forth that the accused unlawfully used the title of "Dr." French, dental surgeon, by having the same on his door-plate, lamp, and signboard at his place of residence, and with unlawfully using the titles of "D.D.S.," resident surgeon, "Dr.," and "D.S." The accused pleaded "not guilty." His defence was that he had advertised that he was "not a registered dentist," and he contended that the titles used by him did not come under the jurisdiction of British law. After evidence, the charge was found proved, and the Sheriff imposed a fine of 10*l.*, with the alternative of seven days' imprisonment.

SUTTON COLDFIELD.

THE BUSINESS established some years ago by Mr. Holm (formerly at Aston) in Station Street, Sutton Coldfield, has been purchased and is being carried on by Mr. Crane, from London.

WESTON-SUPER-MARE.

ROBBING THE TILL.—At the Police Court, on February 2 John Hughes, an assistant, in the employment of Mr. Edwin Hall, chemist and druggist, High Street, pleaded guilty to a charge of stealing money from the shop-till. The magistrate said the offence was a very serious one, but taking into consideration his comparative youth, and also that this was as far as they knew, prisoner's first offence, they were inclined to give him another chance by imposing a fine instead of commitment. A fine of 4*s.* was imposed, or in default on month's imprisonment with hard labour.

"SALLY-COME-UP" is the elegant title chosen by Mr. Young, of Pontefract, for a cough mixture advertised by him locally. We hope and believe he will be left in undisputed possession of the copyright in that title.

BENZINE JELLY FOR REMOVING SPOTS.—120 oz. of white soap are dissolved in 180 oz. of hot water in a litre bottle 30 oz. of ammonia added. The solution is then made up to three-fourths of the bottle by the addition of water, and the whole shaken up. A teaspoonful of this mixture is placed in a bottle holding 250 oz., and mixed therein with some benzine, and afterwards the bottle is filled with benzine under protracted shaking. The result is a gelatinous mass from which the benzine evaporates but slowly. It is useful in removing spots from articles of apparel.—*Pharmaceutische Post.*

MESSRS. S. MAW, SON & THOMPSON.—COMING OF AGE OF MR. C. T. MAW.

On the invitation of Mr. Charles Maw, senior partner of the firm of Messrs. S. Maw, Son & Thompson, a large company assembled at the Albion, Aldersgate Street, on Saturday, January 14, to celebrate the majority of his eldest son, Mr. Charles Trentham Maw. The party consisted of about 200, with the exception of the Rev. S. Flood Jones, Vicar of Botolph's, in which parish the business of the firm is carried on; Mr. Alderman Staples, the Alderman of the Ward Aldersgate Street; Mr. J. Thompson, Mr. Maw's partner; and some half-dozen of his near relatives, including his three eldest sons, Mr. C. T. Maw, Mr. H. T. Maw, and Mr. F. T. Maw, was composed exclusively of employés of the firm. In addition to those present there were some 170 others employed in the house whom it was found impossible to seat, owing to want of space. These were compensated for their appointment by receiving an extra week's wages each. The tables were elegantly decorated with flowers; the banquet was served in the well-known style of the Albion; and during dinner some excellent music was performed by a band under the direction of Mr. W. Collingwood Banks. Mr. Charles Maw presided.

After dinner the Chairman proposed the usual loyal toasts, which were duly honoured. The Rev. S. Flood Jones acknowledged the toast of the "Clergy of the Church of England and Ministers of all Denominations"; and Colour-Sergeant Hopkins was called upon to reply for the "Army, Navy, and Reserve Forces." The special toast of the evening, the "Health of Mr. Charles Trentham Maw," was proposed by Mr. John Bailey, the senior warehouseman, who mentioned that he had entered the service of the firm in 1839. Amid hearty applause, he expressed what was evidently the unanimous feeling of cordial esteem towards Mr. C. T. Maw, and on behalf of his colleagues and himself presented him an engrossed address, together with a very handsome silver épergne, suitably inscribed. The design represented one supported by figures emblematic of Industry, Plenty, and Justice.

Mr. C. T. MAW, in a short but happily-phrased speech, expressed his gratitude for the handsome épergne they had presented to him, and for the kind words with which it had been accompanied, which would always linger in his memory. The health of Mr. Charles Maw was next proposed by Mr. Banks, and met with a cordial reaction. The CHAIRMAN, in responding, gave a short sketch of the history of the House of which he is now the chief. It was founded by his grandfather, Mr. George Maw, originally a Lincolnshire farmer, who came to London in the early part of this century, and in partnership with a Mr. Hornby commenced business in Leadenhall Street as a wholesale druggist, under the style of "Hornby & Maw." His venture, however, proved unsuccessful, and Mr. Maw retired with the loss of a large portion of his capital. What was left he then bought from the representatives of a Mr. Lowe a small business in Whitecross Street, the main part of which consisted of the manufacture of medical stethoscopes. Here he was joined by his eldest son, Mr. John Thompson Maw, and soon afterwards removed to Allerman Street, where, on the retirement of the senior partner, Mr. John Thompson Maw, the speaker's father joined his brother, and they made a second move to more commodious premises, 11 Aldersgate Street, where he (Mr. C. Maw) was born. Mr. J. H. Maw (who is still alive at the age of 85) soon afterwards retired, and the concern was carried on by Mr. Charles Maw alone until 1860, when Mr. C. Maw was admitted, and he, in his turn, conducted it by himself from the time of his father's (Mr. S. Maw's) death, in 1861, until he was joined, in 1870, by Mr. Thompson, when the firm was constituted as it at present remains.

Mr. Alderman STAPLES proposed "Success to the firm of S. Maw, Son & Thompson," to which Mr. JOHN THOMPSON replied. Having been one of the representatives of the firm as far back as 1852, he spoke of the reputation which it had acquired for the excellence of its manufactures and of its honourable dealings. Mr. Thompson traced in some detail the growth of the business during the past thirty years. The number of persons employed in the house at the present

time is 350, of whom 96 are engaged in the actual manufacture of surgeons' instruments and appliances; in commenting on the co-operation of the staff, Mr. Thompson mentioned that the senior warehouseman had been with the firm 46 years, one of the town travellers 41 years, several others from 25 to 35 years, one-fifth of the employés over fifteen years, and one-third from five to fifteen years. He concluded by proposing the health of "The Employés," and this toast was responded to by Messrs. Holdsworth, Martin, Banks, and Carter. After Alderman Staples had replied for "The Visitors," and Mr. F. T. Maw for "The Ladies," the Chairman and several friends left; but the conviviality was continued for some time by the majority of the company.

CHEMICAL SOCIETY.

December 13, 1884.

Dr. RUSSELL, F.R.S., in the chair.

The following gentlemen were elected fellows:—W. P. Ashe, Sir B. V. S. Brodie, Bart., J. F. Ballard, W. Briggs, M. T. Buchanan, W. G. Brown, H. M. Chapman, W. H. Eley, J. Frost, T. P. Hall, H. J. Hodges, H. Jackson, F. Johnson, J. D. Johnstone, G. F. Kendall, C. W. Low, F. M. Mercer, P. C. Porter, V. E. Perez, A. Rickard, K. B. B. Sorabji, R. C. Steele, H. Smith, E. G. Smith, G. Thorn, W. Tate, P. C. Thomas, T. Wilton, J. H. Worrall, W. C. Wise, W. H. Wood.

The following paper was read:—

"Chemico-Physiological Investigations on the Cephalopod Liver, and its Identity as a True Pancreas," by A. B. Griffiths. The author could not detect any bile acids or glycogen in this organ, but a ferment obtained from it by glycerine converted starch-paste into sugar, and formed from fibrin—obtained from the muscular fibres of a young mouse—leucin and tyrosin; the latter body giving, with a neutral solution of mercuric nitrate, a red precipitate.

It was announced that at the next meeting, January 15, Professor Thorpe would read a paper on "The Atomic Weight of Titanium," and that Dr. Frankland would give a lecture in February on "Chemical Changes Produced by Micro-organisms."

January 15, 1885.

Dr. W. H. PERKIN, F.R.S., President, in the chair.

"On the Atomic Weight of Titanium," by Prof. T. E. Thorpe, F.R.S. After numerous experiments the author adopts the number 48.01 instead of 50.25 which was found by Pierre, and has been generally accepted. The number 48.01 is in entire accordance with the value required by the Periodic Law; Mendelejeff's prevision thus receives a further experimental confirmation.

"Note on the Constitution of Propylene-chlorohydril," by Dr. H. F. Morley and A. J. Green.

"The Action of Zinc Ethide on the Benzoate from Propylene-chlorohydril," by the same.

"On Nitrobenzalmalonic Acids," by C. M. Stuart, M.A.

"Alkaloids of Nux Vomica. III. Some Experiments with Strychnine," by W. A. Shenstone, lecturer on chemistry in Clifton College. In continuation of his experiments on strychnine, the author has studied the action of bromine upon the alkaloid, and also the action of nitric acid on bromostychnine and upon strychnine itself. Strychnine can be readily and entirely converted into the monobromostychnine of Laurent by the addition of bromine to a solution of strychnine hydrochloride in about fifty times its weight of water. On treating bromostychnine and also strychnine itself, with strong nitric acid, besides the nitrostrychnines of various observers, a fair amount of 1 : 2 : 4 : 6 trinitrophenol is produced. This last observation is of importance, as it shows the presence in strychnine of a benzene-ring of carbon atoms, and probably also of at least one hydroxyl-group, the latter inference being confirmed by the behaviour of strychnine with alkaline oxidising agents.

"On the Physiological Action of Brucine and of Bromostychnine," by Dr. T. Lauder Brunton, F.R.S. The difference between the effect of brucine and strychnine appears rather

to be one of degree than of kind, and to be chiefly dependent on the more ready elimination of brucine. Like strychnine, brucine produces death by convulsions and not by paralysis; but like curare, it is innocuous when taken into the stomach, though fatal when injected under the skin. Bromostychnine has an action very much like that of strychnine.

"Crystallography of Bromostychnine," by H. A. Miers, British Museum. The crystals belong to the rhombic system, and are mostly rectangular tables. Measurements are given.

"On the Formation of Pyridine Derivatives," by H. V. Pechman and W. Welsh. It is pointed out that nothing is as yet known of the character of the changes which occur in plants and which lead to the production of the alkaloids, and that it has not hitherto been possible to produce alkaloids by reactions taking place under ordinary conditions of temperature. In coumalinic acid, discovered by one of the authors, and obtained by treatment of malic acid with sulphuric acid (*Ber.*, 1884, 936), however, a body has been discovered which at once reacts with aqueous ammonia even at the ordinary temperature, forming hydroxynicotinic acid,

$$\text{C}_5\text{H}_3\text{O}_2\text{COOH} + \text{NH}_3 = \text{OH}_2 + \text{C}_5\text{H}_3\text{N}(\text{OH})\text{COOH},$$

an acid which stands in close relation to the alkaloids.

February 5.

DR. W. H. PERKIN, F.R.S., President, in the chair.

Messrs. J. B. Ballard, Frank Broughton, Rev. Dr. Eley, C. C. Hutchinson, Herbert Jackson, and C. E. Hutchinson were formally admitted Fellows of the Society.

The following were elected Fellows of the Society:—Messrs. William Lane Clark, John Norman Collie, Augustus E. Dixon, George Embrey, Arthur George Green, George G. Henderson, George Selkirk Jones, Walter Frederick Parkhurst, Franz Rindskopf, Harold White, Henry B. Whitehead, Alfred C. Wilson, William Albert Wrenn, Alfred C. Young.

A lecture was delivered—"On Chemical Changes in their relation to Micro-Organisms," by Professor Frankland, D.C.L., LL.D., F.R.S. A plant being defined as an organism performing synthetical functions, or one in which these functions are greatly predominant; an animal as an organism performing analytical functions, or one in which these functions greatly predominate; the micro-organisms were classed by the lecturer among animals. Their life essentially depends upon the taking asunder of more or less complex compounds, resolving them into simpler compounds at the expense of potential energy. The observations of Hutton and others have shown that micro-organisms retain their vitality in presence of a variety of substances which rapidly prove fatal to higher animals; the unexpected fatal effects of spongy iron would seem to promise, however, that there are substances fatal to bacterial life which have no toxic effect on more highly organised animals. It has not yet been shown that any degree of cold, however intense, is fatal; animation may be suspended, but it is restored when the temperature rises. With regard to heat, the lowest fatal temperature recorded is 40° C., but many species can withstand much higher temperatures. Chloroform and compressed air are said to arrest their action, but to have no influence in preventing the changes brought about by unorganised ferments. The position of micro-organisms in nature is only just beginning to be appreciated; their study both from chemical and biological points of view is, however, of the highest importance to the welfare of mankind, and leads the inquirer right into those functions of life which are still shrouded in obscurity.

In the discussion on this paper, Professors Burdon Sanderson, Ray Lankester, Michael Foster, Dr. Lander Brunton, Mr. Warrington, Dr. Hutchinson, and others took part.

Prof. RAY LANKESTER disputed Prof. Frankland's classification of the ferment organisms with animals.

Dr. BRUNTON suggested that it was highly probable that the symptoms occurring in certain diseases were due to poisons formed by the action of organisms and not directly to the organisms themselves. This was not improbably the case in cholera. Micro-organisms may even produce substances fatal to themselves, e.g., phenyl compounds. This is also the case with higher organisms, the retention of the urine in man being often attended with fatal results. Although cholera was very probably due to the presence of low organisms, the symptoms were so very like those pro-

duced by certain poisons, that it was difficult to distinguish cases of poisoning by arsenic from cholera cases. The cholera poison was probably of an alkaloidal character and related to the ptomaines.

Mr. WARRINGTON said with regard to the difference between animals and plants, he thought the fact had been scarcely overlooked that plants are able to obtain their nitrogen from such simple compounds as ammonia and nitrates, whereas animals appear to require to have the nitrogen present in them in an albuminoid form.

February 19.

DR. W. H. PERKIN, F.R.S., President, in the chair.

Messrs. G. S. Bowler, T. R. Duggan, A. G. Green, W. Nicol, W. F. Pankhurst, T. A. Rickard, F. Rindskopf, Thomas, and H. H. Whitehead were admitted Fellows of the Society.

The President declared that the following changes in Council were recommended to the Society:—

As President: Dr. Hugo Müller, F.R.S., vice Dr. Perkins, F.R.S.

As Vice-Presidents: Mr. W. Crookes, F.R.S., and Prof. W. A. Tilden, F.R.S., vice Dr. Voelcker (deceased) and Dr. Griess, F.R.S.

As Foreign Secretary: Dr. F. R. Japp, vice Dr. Hugo Müller.

As Ordinary Members of Council: Prof. F. Clow, Mr. A. E. Fletcher, Prof. G. C. Foster, F.R.S., and Mr. Ludwig Mond, vice Dr. Japp, Dr. Hodgkinson, Mr. Howard, and Prof. Schorlemmer.

Mr. R. H. Davis, Dr. P. F. Frankland, and Mr. Makin were appointed to audit the treasurer's accounts.

The President announced that Mr. Warren de la Rue, R.S., had presented a bust of the late Prof. Dumas.

The following papers were read:—

"On Benzoyl-acetic Acid and some of its Derivatives," Part II., by Dr. W. H. Perkin, jun.

"On Toughened Filter-paper," by E. E. H. Francis. Its paper which has been immersed in nitric acid, rel. den 42, and washed with water, is remarkably toughened, the paper being pervious to liquids and quite different from parchment-paper made with sulphuric acid. Such paper can be whetted and rubbed without damage, like a piece of linen. The paper contracts in size under the treatment and the ash is diminished; it undergoes a slight decrease in weight and contains no nitrogen. Whereas a loop formed from a strip 25 mm. wide of ordinary Swedish paper gave way when weighted to 100 to 150 grammes, a similar loop of toughened paper bore a weight of about 1.5 kilo. The toughened paper can be used with the vacuum-pump, in ordinary funnels without support, and fits sufficiently closely to prevent undue escape of air, which is not the case with parchment-paper. An admirable way of preparing filters for the pump is to dip the apex of the folded paper into nitric acid and then wash with water; the weak part is thus effectually toughened.

"The Detection and Estimation of Iodine," by Ernest Cook, B.Sc. (Lond.). The usual tests for iodine when existing as an iodide are rendered somewhat difficult by circumstances that nitrous acid liberates bromine as well as iodine, while if an excess of chlorine be employed, colourless chlorides of bromine and iodine are formed. These difficulties become of importance when it is desired to detect small quantities of iodides in the presence of comparatively large quantities of bromides, or when a quantitative estimation is to be made of the iodine. To avoid these difficulties, the author proposes to use hydrogen peroxide, which is added to an acetic acid solution. Under these circumstances, the whole of the iodine is separated from the iodide, while bromides and chlorides are unaffected. Details of the methods of employing the test for qualitative and quantitative purposes are given; in the latter case the iodine is extracted by means of CHCl_3 , the solution is washed with a little water to remove hydrogen peroxide, and the titration of the iodine then performed in the usual manner.

Discussion.—Mr. Groves said that he had very successfully used nitrous acid in determining small quantities of iodine in presence of much chlorine.

Dr. Japp did not know that the method described was better than the old well-known process of adding titra-

brine water in presence of carbon bisulphide until the colour of the iodine disappeared, which took place when the atomic proportions of chlorine to 1 of iodine had been ascertained.

Mr. Groves had found this latter a far less convenient process.

Mr. Stevenson spoke to the same effect, and said that he had found the nitrous acid method satisfactory.

Note on Methylene Chlor-iodide," by Prof. J. Sakurai.

A Quick Method for the Estimation of Phosphoric Acid in Fertilisers," by J. S. Wells, Columbia College. Finding the ammonium molybdate method too long and tedious when many analyses of fertilisers had to be done, the author has adapted Joule's citric acid method as a gravimetric process. He employs two solutions: A, consisting of citric acid 10 grammes, ammonia solution (rel. den. 0.92) 1,400 c.c., water 500 c.c.; and B, a strong solution of magnesium carbonate. One gramme of the fertiliser is fused with sodium carbonate and nitrate, dissolved in nitric acid, and the silica filtered off. To the filtrate some of solution A is added, and the whole allowed to stand for half an hour; enough of solution B is then added to precipitate the phosphoric acid.

On the Luminosity of Methane," by Lewis T. Wright, Soc. M.I.C.E.

On the Oxides of Nitrogen," by Prof. W. Ramsay and Rudor Cundall. In the discussion which followed this paper Dr. Armstrong called in question the existence of the compound N_2O_3 .

THE CHEMISTS' ASSISTANTS' ASSOCIATION.

On February 25 the Chemists' Assistants' Association held their annual dinner at the Holborn Restaurant. The chair was taken at 9 P.M. precisely, the hour being, perhaps, a matter of necessity, but late for those who have to patronise the urban railways. Besides, to imagine that middle-aged philosophers are indifferent to missing a bright musical entertainment is quite an error of judgment. The Venetian room in which the dinner was served is one of the most attractive interiors in London. It was occupied by 175 guests, and, when the visitors rose in acknowledgment of the toast proposed in their honour, it was seen how liberally the hosts had issued their invitations. Among those who accepted the invitations were the president, vice-president, treasurer, and several other members of the Council of the Pharmaceutical Society, Dr. F. T. Roberts, one of the physicians to University College Hospital, Dr. Macnaughten Jones, Mr. Carson, F.R.C.S., Mr. Frankish, F.R.C.S., Mr. F. W. Branson, of Leeds, and Mr. C. E. Stuart, B.Sc., of Newcastle, both past presidents of the Association. Professor Attfeld was in his element as chairman, and made an admirable speech in praise of the Association, delivered with much cordiality, and most enthusiastically received. His presence there was the best proof of the ality of the position which this prosperous organisation has attained.

Mr. Carteghe, as representing the Pharmaceutical Society, and especially the Board of Examiners, sketched the advantages of the proposed curriculum, maintaining that its provisions were directly in favour of the candidates.

One of the most successful short orations was made by Dr. Roberts, who spoke entirely to the purpose, and was, moreover, very kind in his remarks on the claims of pharmacy. He had himself begun as a chemist's assistant, and was sure that, if pharmacists sometimes trenched upon professional work, medical men were unfortunately to be found who added upon the legitimate province of the druggist.

The President of the Association, Mr. Richard Winfrey, detailed the more recent progress of the Society over which he presides, and explained their mode of action. This year is a record of success, for large numbers had joined. There are at present 125 members, which is thirty-five more than at any previous period. It was difficult in that and in similar undertakings constantly to recruit the ranks and to sustain numerical efficiency. He defended the introduction into their sessions of matters not strictly pharmaceutical, as they afforded an encouragement for the junior members to exercise the art of speaking. He had himself suggested the subject

of "The Coming Democracy," which was of a political character. In his opinion they should know something of the national events that were taking place.

Mr. Umney replied for the visitors; and there were sundry other toasts.

The singing, as usual, was good, being entrusted solely to the members of the Association, without professional aid. Some of the songs had to be postponed until the speech programme had been duly executed; and, as trains will not wait even for those who are using their time to the best possible advantage, we left the company while they were in the act of conveying to Professor Attfeld their assurance that he was a jolly good fellow, and that that was their collective opinion; with regard to which statement no doubt whatever can exist.

PHARMACY IN AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

MELBOURNE, VICTORIA, January 23.

A LEGAL POINT. PROOF OF AGENCY.

AN important appeal case is shortly to be tried in the Supreme Court, which, if decided adversely to the Pharmacy Board, will necessitate the amendment of the Poisons Act. The facts of the case are, shortly, that a Chinese storekeeper was prosecuted by the Board for illegally selling opium. The evidence at the trial in the Police Court showed that an officer of the Pharmacy Board had bought some opium at the defendant's store, and also saw other people buying opium at the same time. The defendant was not present at the time of the sale.

The counsel for the defendant contended that the summons should be dismissed, as there was no proof that the sale was made by an agent or servant of the defendant, and cited several legal decisions in support of his view.

On the other hand it was submitted for the Board that the sale was made in the ordinary course of business in an open shop, and that it must be presumed that the person selling was the agent or servant of the proprietor, and unless evidence was called by the defendant to rebut it the Court should act on such presumption. Counsel also pointed out that to hold otherwise would be to render the Act nugatory, as in most cases it would be impossible to give actual proof of the agency of persons conducting sales. The Court, however, decided that there was not sufficient proof of agency, and dismissed the case with 2*l.* costs. Against this decision the Board have appealed to the Supreme Court, and the result is looked for with some interest as involving a very important issue.

THE COLLEGE OF PHARMACY.

The Council of the Pharmaceutical Society of Australasia have been in some difficulty in reference to the proposal to obtain the services of an able man from England to lecture at the College of Pharmacy. I understand that negotiations were opened with a gentleman in London who was in every way fitted to fill the position, but the difficulty appears to have been in financial matters, the Government not being in a position to provide the necessary funds this session.

The 1885 session of the College of Pharmacy will commence on March 9, and I hear that a large number of students from the other colonies are likely to attend. Since the idea of getting out instructors from England was abandoned the Council of the Pharmaceutical Society have invited applications by advertisement in all the colonial newspapers from gentlemen to fill the positions of lecturers, and, as there are several possessing first-class qualifications available, it is hoped that really efficient men will be secured.

ASSISTANTS.

The Victorian Chemists' Assistants' Association have held a social supper at the Masonic Hall. A number of visitors, including the Presidents of the Pharmacy Board and Pharmaceutical Society, were present, and in the course of some of the speeches reference was made to the difference in the position of assistants now and twenty years ago. Messrs.

Blackett and Brinsmead gave some interesting particulars of a chemist's assistant's life in London thirty years ago. The Assistants' Association has made steady progress, and is now in a flourishing condition.

PERSONAL.

Mr. Herbert Rocke, of the firm of Rocke, Tomsitt & Co., of this city, wholesale druggists, has returned in the *Austral* after an absence of over twelve months.

Mr. Gwilym Evans, F.C.S., pharmaceutical chemist, of Llanelly, South Wales, has been on a visit to Victoria. After visiting the College of Pharmacy Mr Evans expressed himself greatly pleased with the arrangements for the students in the laboratory, which, he says, are the completest he has ever seen either at home or abroad.

HOP BITTERS.

Another prosecution under the Trade-mark Statute has been instituted by the Hop Bitters Manufacturing Company, who applied for an injunction to restrain J. Wharton, of Sandhurst, from selling or exposing for sale any bitters in bottles bearing labels similar to their own. The judge before whom the case was tried was of opinion that there was such a resemblance between the two labels as would deceive an incautious purchaser. He therefore decided in favour of the plaintiffs, and granted the injunction, with costs.

PSEUDOCUTICLE SOCIETY—EVENING MEETING.*

THE March meeting of this Society was held on Wednesday the 4th inst., the President, Mr. Van Hey in the chair.

As your readers are aware, the peculiarity of these evening meetings consists in the fact that the papers read are only compiled on the day of the meeting, neither the authors nor the topics to be discussed being selected until after midnight of the preceding Tuesday. The object of this arrangement is partly to give authors the opportunity of exercising the imaginative faculty (too often neglected in the treatment of scientific subjects), and also, by stimulating curiosity, to ensure an audience.

By the courtesy of the President, we have been favoured with an insight into the *modus operandi* of the system. The method is simple. On a sheet of ordinary foolscap are written the names of some twelve or more gentlemen, known to be adepts in the art of extemporary research. The President of the Society is then blindfolded by the Secretary, and with a well-linked pen hurls three blots at the paper.

The three names nearest to which the blots fall are noted down, and a telegram as follows despatched to each:—

"From the President of the Pseudocuticle Society to Mr. ——. Evening meeting. You will have to read paper to-night. Commence research at once. Turn up at eight sharp. Wire in."

The spirit of Nelson's watchword is nowhere more potent than among the unpremeditated philosophers of the Pseudocuticle Society. In the epigrammatic terseness of their President's summons, they are always ready to "wire in," and the subject matter and elaboration of style which characterise the papers they produce are prodigies to anyone unacquainted with the resources of Watts's Dictionary and the "Penny Encyclopedia." But to return.

The first paper on the list at the last meeting was entitled "Note on the Proximate Intoxicating Principle of Allsopp's Bitteralium," by Mr. Hammer, F.C.S., F.I.C., &c."

The author remarked that a well-known purveyor of alcoholic beverages had recently submitted to him a sample of this extract, which was found to possess well-defined characteristics of an exhilarating and soporific nature. An inquiry was therefore instituted with a view of determining, if possible, the particular constituent stated to be possessed of this remarkable property. As a preliminary precaution, and to eliminate problematical sources of error, the stone vessel containing the extract was first reduced to powder, and the pulverulent substance thus obtained was subjected

to a systematic analysis. The details of this investigation are too minute to embody in an abstract, but it will be sufficient to say they were attended with negative results.

Attention was next directed to the cork of the bottle. No clue presenting itself from external evidence, it was calcined for a week in a Siemens regenerative furnace, and the ash examined by means of the spectroscope. The absorption bands were not such as could fairly be considered abnormal. The extract itself was next taken in hand, and many most exhaustive series of experiments were made in order to determine its vapour-density, flashing-point, &c., &c. The observations, although of an exceedingly original and striking character, did not throw any important light upon the problem to be solved. The next point to be ascertained was the physiological effect of the extract, and for this purpose it was necessary to obtain a considerable quantity of the extract. The delay which this occasioned unfortunately precluded the author from pushing his inquiry to the desired point, but arrangements had been made with the laboratorer, to submit to the administration of a pint of the extract, whilst fasting, and the author concluded his paper with a promise to submit the results of the experiment at a future meeting.

The President, in proposing a vote of thanks to the author of the paper, deprecated any discussion on the occasion, as the investigation was as yet somewhat incomplete, but he was quite sure they might all look forward with interest to the further results of Mr. Hammer's interesting research.

The next paper, by Mr. Wrong, Ph.C., was entitled, "Note on the Estimation of Iron in a Homoeopathic Globule." A considerable portion of the paper was occupied with an examination of numerous hypotheses to account for the presence of iron in the globule under examination, none of which appeared to be quite satisfactory. The method adopted for the detection and estimation of the metal was then described in detail. *Inter alia* it was stated that the globule was not attracted by the magnet; that in contact with charcoal it was not converted into metallic iron by the oxyhydrogen blowpipe, that its solution in water did not blacken the teeth, and that when mixed with tincture of galls it did not yield writing-ink. A portion of the globule was, however, reduced to powder, mixed with sand, and exposed for some hours in a gun-barrel to a cherry-red heat. The resulting product, lixiviated with water, gave a distinct coloration with sulphocyanide of potassium, and the estimation of the iron was then effected by means of a volumetric process which would be described on a future occasion.

The President having invited discussion, Mr. Swallowdale said, *à propos* of Mr. Young's paper, he thought this was a favourable opportunity to mention that his little book had reached a third edition, and that it was now generally recognised by the profession as the only extra-ordinary authority.

Professor Taldefit, in congratulating the author of the paper on the succinct manner in which he had presented the results of his research, took occasion to remark that the Pseudocuticle School, over which he had the honour of presiding, was undoubtedly the best in the Kingdom, and he besought the meeting to beware of spurious imitations. The letters which he was constantly receiving from the parents of his pupils were of the most affecting kind, and, though it would be somewhat presumptuous on his part to dictate to members, he must state his conviction that it was the duty of every father to place his son (if he had one) in the laboratories of the Pseudocuticle School.

The third paper was by Dr. Silas, on "Hints on the Adoption of Cocaine as a Disinfectant."

The author first gave an interesting *résumé* of the literature of vibrios, bacilli, and bacteria generally, and pointed out that no disinfectant had hitherto been considered satisfactory which did not destroy the life of these organisms.

In consequence, however, of the agitation against vivisection, humanitarian doctrines were now held by a no inconsiderable portion of the community, and sooner or later there would be an outcry against the use of disinfectants, which destroyed the life of even the humble bacillus.

As a way out of this difficulty it had occurred to the author that the object of a true disinfectant might still be attained without sacrifice of life, by simply suspending the

* We had not before heard of this Society, but its proceedings seem of sufficient interest to warrant the publication of this report, which has been sent to us by a member.—ED. C. & D.

of the organisms in question by means of an
hetic, and cocaine naturally suggested itself as one
to be popular.

concluding his remarks, the author invited members
ward him supplies of the alkaloid. Its action as a
ectant he would describe in a subsequent paper.
vote of thanks having been unanimously accorded to
las the meeting adjourned until April 1.

ACCIDENTAL EXPLOSIONS PRODUCED BY NON-EXPLOSIVE LIQUIDS.

FREDERICK ABEL, C.B., &c., delivered a lecture on
his subject, at the Royal Institution, on Friday, March
after giving particular accounts of a large number of
ions on board ship and elsewhere, resulting from the
of the vapours of inflammable non-explosive liquids,
sturer discussed the experiments made by himself and
overtion Redwood into the causes and circumstances of
losion of mineral-oil lamps. These were briefly sum-
ed as follows:—

a partially filled lamp were carried or rapidly moved, a
re of oil vapour and air might be caused to escape from
mp in close vicinity to the flame, and by becoming
nil might determine the explosion of the mixture existing
t reservoir. This escape might occur through the burner
f the wick did not fit the holder properly, or through
pings which exist in some lamps in the metal work close to
lner, of sufficient size to allow flame to pass through them
adr. A sudden cooling of the lamp by its exposure to a
treat or by its being blown upon, as, for instance, in adopt-
common practice of blowing down the chimney to
tish the flame, might give rise to an inrush of air, and
me might be at the same time drawn or forced into a
ervoir. The sudden cooling of the glass if it had
e heated by the burning of the lamp might also cause
to crack if it were not well annealed, and the fracture,
might allow oil to escape, might convey the impression
a explosion had taken place. If the flashing point of
were somewhere about 73° F. (the minimum fixed by
apour would be given off comparatively freely, but the
te of vapour and air would be but feebly explosive;
h the flashing point were high, vapour would be less
and copiously produced, but the vapour mixture
ou be more violently explosive. If the quantity of
the reservoir were but small, and the air-space large,
losion would obviously exert greater violence than if
onditions were reversed. If the wick were lowered
very much, or if for some other reason the flame were burning
low, the lamp would be liable to become much heated,
e tendency to the production of an explosion would
eased. Oils of high flashing point were more liable
to heating of the lamp in consequence of the higher
mperature developed by the combustion and the compara-
tively lowness with which a heavy oil was conveyed by the
wick to the flame. It therefore followed that safety in the
use of mineral oil lamps was not to be secured simply by the
employment of oils of very high flashing point (or low
volatility), and that the use of very heavy oils might even
give rise to dangers which were small, if not entirely absent,
with oils of comparatively low flashing point. The character
of a wick very materially affected, not only the burning
quality of the lamp, but also its safety. A loosely-plaited
wick of long staple cotton would draw up the oil to the flame
regularly and freely, while, if the wick were very tightly
plaited and made of short staple cotton, it would be of
inferior capillary power, the oil would be less copiously drawn
up, and undue charring of the wick—with considerable
heating of the lamp—might ensue. If the wick were damp
when taken into use, or if the oil contained moisture, the
capillary action of the wick would be impaired; and long-
continued use of the wick would be liable to result in its
becoming choked with impurities, held in suspension in the
oil and strained through it. Many lamps were so designed as to
facilitate the production of explosion, openings or channels
being provided through which the flame might pass into the
oil reservoir.

For simple suggestions were made for lessening, if not

removing, the risk of accident which attends the use of
petroleum and paraffin oil.

1. The reservoir of the lamp should be of metal, and
should have no opening or feeding place in the metal.

2. The wick used should be soft and loosely plaited; it
should fill the wick holder, but not so as to be compressed
within the latter, and it should always be thoroughly
dried before the fire when required for use. The fresh wick
should be but little longer than is required to reach to the
bottom of the reservoir, and should never be immersed to a
less depth than about one-third the total depth of the re-
servoir.

3. The reservoir of the lamp should always be almost
filled before use.

4. If it is desired to lower the flame of the lamp for a
time, this should be carefully done, so as not to lower it be-
neath the metal work more than is absolutely necessary.

5. When the lamp is to be extinguished, and is not pro-
vided with an extinguishing apparatus, the flame should be
lowered until there is only a flicker; the mouth should then
be brought to a level with the top of the chimney, and a
sharp puff of breath should be projected across the opening.

A CONTRIBUTION TO THE HISTORY OF THE DRUG TRADE.

LAST month we recorded the fact that Thomas Hanbury, Esq.,
had presented to the library of the Pharmaceutical
Society seven volumes, comprising catalogues of articles sold
at Plough Court, Lombard Street, inventories of drugs, &c.,
during nearly a century. We have since had an opportunity
of examining these volumes, and during a hasty search have
extracted some particulars concerning the conditions of busi-
ness which will probably interest our readers. If any one
would spare the time to make a real comparative study of
these records, somewhat in the style of Thorold Rogers'
"History of Agriculture and Prices," there is no doubt that
very much more interesting matter would be revealed.

The earliest record is an undated catalogue of drugs and
of chemical and galenical medicines, prepared and sold by
Silvanus and Timothy Bevan, in Plow Court, in Lombard
Street, London.

At the end of the little volume are some MS. entries of
the prices of books:—"Theobald's Dispensatory," 3s. 6d.
sterling; "Huxham on Fevers," 4s. 6d. sterling; "A
Treatise of the Influence of the Sun and Moon upon
Human Bodies, &c." (Dr. Mead), 4s. sterling; "Dr.
Mead upon the Small-pox and Measles," 4s. sterling.
"Theobald's New Compendious Dispensatory" was published
in 1756. Huxham published his third edition "On Fevers"
in 1757, and the fourth in 1764. Dr. Richard Mead's treatise,
"De Imperio solis ac lune in corpore humano," &c., appeared
in 1704, and was translated in 1712. His work "De variolis
et morbilis" appeared in 1747, was Englished by Slack in
1748, and was published again in 1756 under the title of
"Translation of the Latin Treatise on the Small-pox and
Measles." The date of the catalogue, therefore, cannot be
earlier than 1747, and was probably between 1756 and 1760.

The volume next in date contains inventories of drugs (*i.e.*
registers of stock-taking), Timothy Bevan, 1776 to 1794. At
the end of the last we find "Total eleven hundred and sixty
pounds 3s. 6d., errors excepted, J. G. Bevan. London, 1, 7 mo.,
1794."

Next comes a laboratory calculation book, which, "chiefly
in the handwriting of William Allen, is a record of laboratory
operations at Plough Court, Lombard Street, in the years
1795, 6, 7, and 8."

There are then two copies of a catalogue of drugs sold by
Mildred & Allen, *chemists and druggists*, dated 1796. Facing
the title of one copy is inserted a wood-cut, which a pencil
note by T. H. informs us is the chemist's shop in Plow Court.
It is an old-fashioned building of several stories, with small-
paned windows.

Following in order of time are inventories of drugs or
accounts of stock-taking for the years 1810 and 1811, the
firm then being William Allen & Co. The last is signed
"3 mo., 25, 1812, D. B. H." Daniel Bell Hanbury, the father of
Daniel Hanbury, was seven years older than the century. He

was nephew to William Allen and became his partner, and it is just possible that it was he, in his nineteenth year, who signed this account.

Next in date is a cost-price book, 1824-1844, of Allen, Hanbury & Barry, indicating by abbreviations the cost of each article, the date when, and the firm from whom, it was purchased.

Lastly, we have price-book of drugs, 1846 to 1866, Allen & Hanburys, giving retail prices for that period.

Very remarkable is the neatness and legibility of the handwriting throughout this long period. There is hardly any difficulty in deciphering any entry in these five books; and this fact, slight though it is, is a significant indication of the characteristics which have ensured the continued growth of the firm.

THE VALUE OF THE STOCK carried by a first-class firm at that period cannot fail to be interesting. There are some remarkable fluctuations not easily accounted for. The first inventory of the stock of Timothy Bevan, July 1, 1776, occupied thirty-one pages, and was valued at 2,597*l.* 14*s.* 4½*d.*; in December, 2,603*l.* 12*s.* 0½*d.*; December, 1777, 2,244*l.*; December, 1780, 1,953*l.*; December, 1781, 1,911*l.* 12*s.* 4*d.*; December, 1782, 1,707*l.*; December, 1783, 1,468*l.* 7*s.* 4*d.*; December, 1786, 1,374*l.* 12*s.* 1½*d.*; December, 1787, 1,440*l.* 1*s.* 9*d.* (occupying eighteen pages only); December, 1788, 1,360*l.* 18*s.* 2*d.*; December, 1789, 1,532*l.* 14*s.* 9*d.*; December, 1790, 1,318*l.* 8*s.* 8*d.*; December, 1791, 1,240*l.* 6*s.* 1*d.*; December, 1792-93, 1,369*l.* 16*s.* 10½*d.*; July, 1794, 1,166*l.* 3*s.* 6*d.*; December, 1810, 3,814*l.* 8*s.* 4*d.*; December, 1811, 3,673*l.* 11*s.* 9*d.*

There are duplicates of the accounts for 1786 and for 1792-93, one of each pair is not cast, and of the latter pair one is dated 1792 and the other 1793.

In the first of these inventories is a list of the stock of "Quack Medicines," but in 1780 the heading is "Patent." Here are the details for 1776:—

Court plaister, small	1 dozen at 2 6	<i>s.</i> <i>d.</i>
Dr. James' powders	17 papers, at 1 8½	
Lockyer's pills (small)	20 boxes, at 1 6	
Walker's Jesuits' drops	8 bottles, at 1 10½	
Elixir Bardane (Hill) [doubtless John Hill, M.D., a most prolific writer on herbal medicines]	4, at 2 6	
Tinct. sage (Hill)	7, at 2 6	
Tinct. valerian (Hill)	6, at 2 6	
Baume de vie	4, at 2 6	
Eaton's styptic (small)	3, at 2 6	
Greenough's tincture	2, at 0 9	
Hamilton's	1, at 2 0	
Brittish oil	6, at 0 6	
Turlington's (large)	4, at 3 0	
" (small)	6, at 1 6	
Bateman's drops	14, at 0 10	
Squire's elixir, § 8	7, at 1 8	
" § 4	42, at 0 10	
Bostock's cordial	6, at 0 10	
Anderson's pills (small)	10 boxes, at 0 5	
Hooper's female pills, 36 boxes, at per dozen of 13 boxes, total 1 <i>l.</i> 5 <i>s.</i>		
Bougies	11 dozen, at 1 9	
Balsam of honey	2 3 (crased)	

In 1777 we find 24 quires of Stoughton's "Directions."

In 1810 we have the first entry of medicine stamps, 13*l.* 11*s.* being the value of those in stock, of receipt stamps 11*l.* 6*s.*

1776.—The list of glass and stone ware is uncommonly like what we still use:—Green bottles: square, for rose-water; squares, for chests; green stoppered bottles; square-stoppered, for E. vitriol; wide-mouth, flint-stoppered; narrow-mouth, flint-stoppered. White vials: Sorted. Green vials: square, for lavender; stone bottles, blue and white pots, galley-pots. But there are retorts, 17 different sizes, 17 at 1*s.* 3*d.* each; receivers, different sizes, 19 at 1*s.* 4*d.*; and boltheads, different sizes, 40 at 6*d.*

In 1780, Winchester quarts, at 3*s.* dozen, and Winchester pint at 2*s.* 10*d.* dozen, wine, Corbyn, and common quarts, and pottle-retorts appear in stock. This is evidence of the existence of these names a century ago, but does not help us much to their origin. In the same year we find a "parcel" of oval pill-boxes at 3*s.* From 1790-94 the inventories seem to be in the handwriting of William Allen.

Perhaps the laboratory calculation book will be most inte-

resting to chemists. It is difficult to say how far it represents the actual business consumption of the quantities recorded. A thorough analysis of it would be resting, but we have only space for a few specimens.

Scilla: siccat. is made six times in the four years 1790-93. Here is one of the entries concerning it:—

Seilla rect., lb. 56 av.	9
Coals, 1½ bushels, at 1/10	3
Attendance, 1½ day	6
Lb. 9½ at 2/0, 18/8½	18

This is the style in which all entries are made. The entry of dried squill is made on 21, 2, 95, the last in Dec. '98. The quantity turned out is 72 lbs. 11 oz.; in 1795; 5 lbs. in 1796; 19 lbs. 15 oz. in 1798. It is possible that some entries have been overlooked. The cost was from 1*s.* 9½*d.* per lb. in February, 1795, to 3*s.* lb. in Feb. 1798.

Syrup of tolu is made six times, total 125 lbs. 6 oz. generally, 1*s.* 4*d.* to 1*s.* 4½*d.*, but 1*s.* 9*d.* in March, 1795, being then 1*s.* 3*d.* per lb., against 1*s.* 1*d.* as a rule, the balsam is 4*s.* 6*d.* per lb. against 6*s.* 6*d.*, the price which was made last. At this entry we have the following:—

N.B.—The syr. bals. tolu made this time is not to be taken for an in future. Josh. thinks it will be better to put the balsam into a balneum with the distilled water, put a small pan that will just touch the top of the balneum, nearly fill this with water, lute it round with meal, only leaving a small vent-hole, set the balneum over a small fire, boil it for about half an hour, take it from the fire, let it cool, strain it through a fine lawn sieve, and dissolve the sugar in the liquor over the fire as fine as possible, it should just boil after the sugar is solved, then pour it into an earthen jar and cover it over. Then take off the seum, and strain into the bottle through a lawn sieve and funnel.

A good deal seems to have been done in the distillation of essential oils. Thus in August and September, 1790, 183 lbs. of essential oil of peppermint were distilled at Plover Court. Two lots were treated on September 1, 3 tons 10 cwt., the other 29 tons 17 cwt., both at Killick, a herb-grower at Mitcham. The larger cost 376*l.* 5*s.* 4*d.* for the peppermint, 9*l.* 18*s.* for coal, for the attendance of two men for 21 days, 3*l.* for the expenses of Killick's men, horses, &c., 2*l.* 2*s.* for the cost of mint over 10 tons; but the cost of carting away the rubbish, charged on other lots, is here omitted. The cost is 399*l.* 13*s.* 4*d.*, the yield 128 lbs. 11 oz., which cost out at just under 62*s.* 3*d.* per lb. Previous lots cost 64*s.* 6*d.* per lb. In July of the same year we have a lot of oil of lavender distilled partly at Plover Court and partly at Plaistow, yield 84 lbs. 12 oz., price from 36*s.* 6*d.* to 38*s.* 6*d.* per lb. Lavender was bought by the dozen of 13½ lbs. at 6*s.* a dozen.

Here are the charges for the first lot of calomel, made April 22, 1795:—

Sublimate, 40 lbs. at 5/3	£ 10 10
Quicksilver, 27 lbs. at 4/11	5 10
16 bolt-heads, at 1/6 each	1 4
Coals, 13 bushels	1 3 10
Attendance, 9 days at 4/	1 16
	20 4 1

65½ lbs. at 6/2, 20*l.* 5*s.* 5½*d.*

The next lot entered is in February, 1796, 102½*s.* 5*s.* 2½*d.*; next in May, 1796, thrice sublimed, 77½ lbs. 5*s.* and in the same month, 48 lbs. of ordinary at 5*s.* 2*d.*

AC. NITROS. DIL. is made several times. This is the account for 76 lbs., made on May 4, 1795:—

Nitre, 68 lbs. at 1/3½	£ 4 6 5
Coals 2 bushels at 1/10	0 3 8
Attendance, 1½ days	0 6 0
Retorts	0 8 0
	5 15 5

Charging the yield at 1*s.* 6½*d.* brings the total to 57*l.* 17*s.* 2*d.* Twenty-eight lbs. are made next day; 11 lbs. on the 12th of the month, and 33½ lbs. on the 29th.

Ac. nitros. made on July 1, 1795, costs 3*s.* 3*d.* per lb.; only are made.

Here is a formula for half-a-dozen horse-balls (cir- 7*s.* 1½*d.* Nowadays they would probably cost much less

Attendance, five hours, is charged at 1s. 8d., and 2 oz. liquorice powder for rolling 3½d.

Aloes succot. pulv.	..	..	..	..	..	3 6	Troy
India rhubarb	..	..	..	..	..	1½	oz.
Jalap pulv.	..	..	..	..	..	3 6	
Crem. tart.	..	..	..	..	..	3 6	
Ginger pulv.	..	..	..	..	..	3½	
Ol. caryoph.	..	..	..	..	..	3 2	
Ol. anisi	..	..	..	..	..	3 2	
Syr. e spin clovin	..	..	..	..	..	3 2	

ereb. venet. factit. is made on more than one occasion; quantities used do not always agree. Once we have 1 lbs. of yellow resin, 4 lbs. of black resin, and 9½ lbs. of ol. tereb.; at another time 46 lbs. of yellow resin, 16 lbs. of ol. tereb., and 38 lbs. of ol. tereb.

These renowned compounds, which have had a wider reputation than any other galenical before the days of patent medicines, and have certainly had more public honour and credit history and literature of their own than any other compound medicine, Theriaca Andromachi and Mithridates, have constant record in these volumes. In this laboratory-book we find records of the manufacture of Theriaca from the species (at 7s. 7d. per lb.): 16 lbs. at 2s. 2d. per lb. on February 11, 1795; and in 1811, 1795, an elaborate account of the cost of the whole sixty ingredients, from 36s. for strained opium, 10s. for saffron, 3s. 6d. for vipers, to ¼d. for sweet flag, amounting to a total of 57. 14s. 2d. for the 11½ lbs. of species. The grinding cost 5s. 9d., sp. vin. rect. employed in assisting to break the gums, 1 pint, 3s. 3d.; thrice the weight of mel. rosam., 41 lbs. 1½ oz. at 10d., 17. 14s. 3d.; attendance, three

days, 18s.; charcoal, 1s.; total 56 lbs., costing 87. 16s. 5d.; or a trifle over 3s. 1½d. per lb. There is the following note:—

N.B.—The succ. glychirr and hypocist were dissolved by themselves in water and strained through a sieve, the sagap. ch. turpentine, op. pur. galban, were dissolved by themselves in the great pan and the sp. vin. added to prevent the fire from depriving them of their aroma and to facilitate the solution. The sagapen and galban were dissolved by themselves and strained into the great pan. A little honey was incorporated with them first, and the rest added with the species, and the whole beat well together for several hours.

Another, 49 lbs., was made on June 13, 1797, costing then 3s. 9d. per lb.

Mithridate is made on December 16, 1796: the forty-four ingredients, weighing 300 oz., cost 107. 15s. 11½d.; the honey, attendance, &c., increased this to 137. 7s. 9d.; and the cost per lb. of the finished product is 3s. 7½d. In the middle ages Theriaca was always sold in tin canisters—indeed, an early indictment of a French coiner mentions that he used theriacal tins as part of his material. But in 1777, when there are four-teen tin pots for Theriac. venet. in stock, they are priced out “nil.” In 1810 there are still 13 lbs. 5 oz. Theriac. Androm. in stock charged at 4s. 8d. per lb., and 5½ lbs. in 1811 at the same price. It was, we believe, in 1820 that the College of Physicians decided by a special vote to exclude it from the Pharmacopœia.

But we must hurry on, just stopping to notice that even in 1811 there were 4½ oz. mil. opœdæ prep. in stock at 6s. 3d. per oz.

It would not be difficult to construct from these volumes a table of prices for ninety years, 1776 to 1866, with very few breaks, and the table could not fail to be of interest, as will be seen from the few extracts we give from the “Cost-price Book,” 1824-44:—

	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844
morphia,	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
per oz. and	50 0 40 0	45 0 40 0	42 0	—	7 4½	—	—	—	20 0	22 0	21 0	19 0	15 0	12 0	10 6	8 0	8 0	7 0	8 0	—
of potash,	—	—	—	—	6 6	—	—	—	—	9 4	4 0	—	—	—	—	—	—	—	—	—
on, essent.,	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	9 0	8 0	8 0	8 0	8 0	—	—	—	—	—
quinine,	25 0	24 6	23 0	14 0	11 6	7 9	7 0	7 9	8 0	7 3	6 0	5 8	5 3	—	—	—	11 6	—	8 0	9 6
per oz. and	—	1 9	—	1 5	1 3	1 8	1 0	1 0	1 1	0 9	0 9	0 9	10 0	8 8	0 8	0 5	0 4½	0 4½	—	1 0
te of potash,	—	1 9	—	2 0	1 3	1 0	1 6	1 6	—	—	—	—	—	0 9½	—	—	—	0 6	0 6	0 10½
per lb.	4 6	1 9½	—	0 10	—	—	—	3 4	1 2	1 2	—	—	—	4 9	3 9	—	1 3	1 9	—	—
(1824, 24s.),	—	19 0	14 0	12 0	11 6	17 0	14 0	—	16 0	—	10 0	7 6	—	5 0	—	—	—	4 6	—	—
per lb. ...	3 9	3 9	3 0	—	—	—	2 3	—	2 3	2 2	—	—	—	—	1 7	1 7	—	1 7	1 6	1 7
ic, per lb. ...	15 0	14 0	12 0	10 0	9 0	8 6	8 6	8 6	8 6	8 6	8 6	—	6 9	6 6	5 10	5 9	4 9	4 3	3 3	3 0

argain for the whole parcel, 13 oz. French in 72 bottles.”
 er reduction of duty on opium, from 4s. to 1s. on pound.
 n Macfarlane, North Bridge, Edinburgh.
 ch.
 son's,

b Ogilvie, North Shields.

c Irvine & Co., Glasgow.

d In bond.

e 1825 to 1833 the prices are for crystals powder, 6d. extra. 1834 to 1844: the prices are those of powder.

Have scattered records of the prices of aconitine, 1s. 6d. in 1834 and 1835, also 4d. per grain in the latter and in 1836; 3s. 6d. per grain for “Morson's” in 1835 and 37; 107. 10s. per ½ oz. in 1842.

Atto Anglie “cake,” Fullwood, is marked at 4s. 6d. and in 1839.

ne and bromuret of potash are placed among the tests, along the drugs in this series of prices.

Sal cinchon. essent. is taken in stock at 10s. per oz. in 1810 and 1811.

Copaiba was at 4s. 3d. per lb. in 1810, 5s. 6d. in 1786, 1s. 10d. in 1780, 4s. 2d. in 1777, and 2s. 2d. in 1776.

Bals. tolu was at 6s. 6d. per lb. in 1811, 8s. in 1810, 7s. in 1775.

Cantharides was at 28s. per lb. in 1811, 14s. 6d. in 1810.

Borax was worth 2s. 4d. per lb. in 1810, and 2s. 10d. in 1776.

THE CHEMISTS' RETAIL.

[SECOND ARTICLE.]

WE continue our adaptations from the work of Mr. Ad. Vomacka, "Unsere Handverkaufsartikel" (Leitmeritz, Austria).

BLOOD-PURIFYING TEA.

Rad. sarzæ	100
Rad. bardanæ (burdock root)	100
Rad. liquiritiæ	80
Ligni guaiaci	150
Ligni sassafras	100
Foliorum sennæ	100
Fructi anisi stellati	15
Stipitum dulcamaræ	200
Semini sinapis	1

Cut and break up all the ingredients except the mustard, and by a coarse sieve separate the large pieces; and by a fine sieve remove the dust. Coarsely powder the mustard and mix all together.

The proportion of sarsaparilla can be increased if a more active compound is required. The purifying properties of this medicine are sometimes questioned, but they are generally esteemed.

It is advised to put up this tea in tall, square, or cylindrical cardboard cases capable of holding 8 oz. Between each ounce a square of card fitting the case is placed, and the packet may be labelled as annexed:—

[We print this label on a smaller scale than would be necessary. With such a label a medicine stamp would be required.]

SPRING MEDICINE

Blood-Purifying Tea.

Composed exclusively of safe herbal medicines.

A most useful remedy for all persons with a tendency to Gout and Rheumatism; very effective in old-standing obstinate skin complaints; serviceable in Liver Disorders, Hemorrhoids, Jaundice, &c.; and for removing all Syphilitic and Scrofulous Taints.

This tea promotes the action of the skin, of the kidneys, and of the digestive organs, and thus provides for the regular, normal tissue changes which keep the constitution healthy.

DIRECTIONS.

Pour one pint of boiling water on each dose as divided (the packet contains eight doses), let it stand for half an hour. Then press and strain.

Drink a small cupful as warm as possible night and morning.

Name and Address.

[Mr. Vomacka omits to give the quantity of water, and apparently prescribes the infusion of each dose to be taken at one draught. This we think would be strong for an alterative medicine.]

SUMMER MEDICINE

FLORAL INCENSE.

Fol. rosæ, herbæ chenopodii (C. ambrosioides), ligni santali, florum calendule, lavandulæ, et prœniæ (of each), 80; rhizom. iridis florent., 200; cort. cascar., 20; styraçis liq., 20; resin. benzoes, bals. peruv., ol. bergam., ol. caryoph., ol. limon. (of each), 15; ol. cinnaam., 3; ol. sassa. liq., 1; spirit. bretfeld. (see next formula), 150.

The flowers and leaves to be cut up into small equal-sized pieces and sifted as directed in the preceding formula to separate large pieces and dust, and mixed. The orris-root, first cut up small, should be divided into seven equal portions. Of these, six may be soaked in different aniline solutions, and afterwards dried, and one left white. All these are then mixed with the flowers and leaves.

The storax is melted in a water-bath, the cascarilla, cut up

very small, is added gradually, the whole dried on a plate until it can be rubbed by the hand into small particles. The dust should be separated from it by sifting. The oils and the Peruvian balsam are to be dissolved in a field spirit, and the solution poured over and well mixed with the solid ingredients; and, lastly, the benzoin in a condition is well mixed with the whole.

This can be packed either in metal boxes or in cardboard cases. The ingredients should first be wrapped in paper. Label as under:—

FLORAL INCENSE

for Parlour Use.

Sprinkled on a warm metallic plate and not allowed to char, this compound will develop a most pleasant fragrance, which will soon fill the room, and will last for a considerable time.

The odour is refreshing and wholesome.

Name and Address.

BRETTFELD SPIRIT.

Rhizom. iridis. flor.	230
Spirit vini conc.	2,300
Ol. limon.	70
Otto rosarum	60
Ol. neroli bigarade petits grains	70
Ether rubi idæi	1
Moschi	15

Digest the orris and the musk in 2,000 grammes spirit in a moderately warm place for 10 days, frequently shaking. The flask in which it is digested should be with parchment-paper pierced with a few pinholes. The essential oils in the rest of the spirit and let them also stand for 10 days. Then press the first mixture of the fluids; let the mixture stand all through the summer the cellar to deposit the resinous portion of the oil. Afterwards decant and filter perfectly bright.

It is very important that the most highly rectified spirit only should be used. The perfume has a violet odour, and may be used either as a handkerchief perfume or sold in a perfume-spray apparatus, or it may be diffused a violet fragrance through a room by pouring a few drops on a warm plate.

COUGH OR PECTORAL POWDERS.

The following formulæ are given as forming two well-known remedies in Austria. No. 1 is known as Poga Catarrh Powder, and No. 2 is a popular preparation under the title of Piaker-powder.

No. I.

Sodæ bicarb.	30
Potass. nitrat.	50
Ammon. mur.	1
Sacchari albi	100
Ol. feniculi	25

No. II.

Pulv. glycyrrh.	100
Pulv. sennæ	30
Sulphuris loti	30
Pulv. anisi stellati.	50

In either case all the powders (except the aniseed) should be separately dried before mixing. Both are said to be effective remedies. The dose in either case is "as much will lie on the point of a knife" several times daily.

COUGH SYRUP.

Ext. glycyrrh. depurat.	..	..	..	..	20
Ext. multi	..	..	..	..	80
Mellis depurati	..	..	..	..	200
Glycerine	..	..	..	..	100
Aque lauro-cerasi	..	..	..	..	25*
Ol. feniculi	..	..	..	..	1
Ol. anisi stellat.	..	..	..	..	1

[is would be equivalent to about 32 parts of the aq. lauro-cerasi B.P.]

olve the two extracts in the honey in a water-bath, after perfectly cooling add the glycerine, the cherry-water, and the ethereal oils.

[e label as below would render a stamp necessary.]

COUGH SYRUP.

For the relief of all Catarrhal Complaints, such as Coughs, Colds, Hoarseness, and Soreness of the Chest. Take one teaspoonful several times daily, with or without the addition of a little warm milk.

This Syrup is of a nourishing character, and assists the digestive process.

Name and Address.

PECTORAL TEA.

Foliorum altheae	..	..	..	..	100
Lichenis islandici	..	..	..	..	80
Herbæ millefolii	..	..	..	..	40
Capitum papaveris	..	..	..	..	50
Radix liquoritiae	..	..	..	..	100
Semenum anisi stellati	..	..	..	..	30

ingredients to be cut or broken up small and sifted,

PECTORAL TEA.

For all Catarrhal Affections of the Air-passages and Lungs, Coughs, Hoarseness, Obstinate Colds, &c.

Pour half a pint of boiling water over a small handful of the Tea and drink morning and evening with a teaspoonful of malt extract.

A cup of this Tea drunk hot will prevent the evil effects of a chill.

Name and Address.

CACHOUS AROMATISES.

Nutmegs, 7 grammes; cardamoms, 5 grammes; vanilla, 8 grammes; cloves, 2½ grammes; orris, 10 grammes; musk, 3 centigrammes.

Oils of peppermint, 32 drops; lemon, 20 drops; cinnamon, 6 drops; orange flowers, 12 drops.

Sugar, 20 grammes; liquorice powder, 35 grammes.

Extract of liquorice root q. s. to form a pill-mass, from which form pills of 5 centigrammes weight each. Roll in silver.

The important considerations in making cachous are to get a good stiff mass and to silver the pills brightly. The oils should be of the finest quality, and particular care should be taken that the liquorice extract is of good flavour. It should not have any burnt taste.

The cachous are generally put up in round metal boxes, or they may be supplied in small glass tubes. The following is suggested for the label:—

“CACHOUS AROMATISES.—For removing all unpleasant odour from the breath after smoking, and after taking beer, wine, &c. Indispensable before entering drawing-rooms, balls, &c.”

PERFUMED CARBOLIC ACID.

Crystallised carbolic acid	..	..	..	..	50
Rectified spirit	..	..	..	..	45
Oil of citronella	..	..	..	..	5

Melt the carbolic acid in a water-bath and pour it into the spirit. Add the oil when cool. Filter if necessary. Label:—

Concentrated Perfumed

CARBOLIC ACID.

Prevents putrefaction and destroys all animal and vegetable germs. In consequence of its agreeable odour, this form of Carbolic Acid is especially recommended for purification of rooms.

N.B.—Carbolic Acid is Poisonous. If by accident any should be drunk, mix quickly 1½ ounce of lime [the plaster from the ceiling will do] and 6 ounces of sugar in half a pint of milk and drink at once. Send immediately for a doctor.

CHOLERA DROPS (DR. BASTLER'S).

Tinct. cinnamomi	..	..	..	..	240
Ol. anisi vulgar.	..	..	..	..	25
Ol. cajuputi	..	..	..	..	25
Ol. juniper bacc.	..	..	..	..	30
Camphoræ	..	..	..	..	5
Etheris rect.	..	..	..	..	150
Elixir acidi Halleri	..	..	..	..	10

Dissolve the oils and camphor in the ether and mix with

This preparation has been known for many years as a valuable protection against Cholera, Diarrhoea, Dysentery, Loss of Appetite, Colic, &c.

DR. BASTLER'S CHOLERA DROPS.

Dose, 30 to 40 drops on sugar may be taken to relieve pain; 10 to 15 drops three times daily to serve as a protective medicine.

the tincture and the acid. The tincture of cinnamon should be prepared with strong spirit or the oils may separate. [The label subjoined would necessitate a medicine stamp.]

considered under Blood Purifying Tea. The label annexed would render the packet liable to medicine-stamp duty.

CARMINE.

For a cosmetic mix 2 parts of the finest procurable carmine with 1 part of the best French chalk. The latter facilitates the application of the carmine to the face. The powder may be supplied in one packet or in divided powders, 10 or 12 such in a packet. Label:—



SPIRIT OF PINES.

Ol. pini silvestris	100 grammes
Ol. pini pamillonis	1 "
Ol. aurant. cort... .. .	25 "
Tinct. vanillæ	5 "
Ether acetic	25 gtt.
Sp. vini rect.	200 grammes
Ol. cardamom.	1 gtt.

Dissolve the oils in the spirit; add the ether, and colour with a few drops of chlorophyll.

Only the finest pure oils and the purest spirit should be employed, and as the preparation is liable to deteriorate only a small quantity should be kept in stock, and all should be kept in a cool dark place.

SPIRIT OF PINES.

A product of distillation, yielding the healthful and ozonising vapour of the pine forests. Specially recommended as an elegant

DISINFECTANT

for dwelling-rooms and bed-chambers as well as for sick-rooms. Sprinkled about the room the Pine Spirit diffuses a refreshing odour, which at the same time soothes the nerves and relieves the breathing organs.

Name and Address.

It should be sold in square bottles, not too full, well corked, and capped with goat-skin, wrapped in coloured paper, and labelled outside as above.

Eau de Javelle.

(French Bleaching Fluid.)

To bleach linen dilute this fluid with an equal quantity of water, and with the mixture moisten the linen. *But the liquor must not be in contact with the linen for longer than fifteen minutes;* at the end of that time it must be well rinsed in fresh water. To remove fruit or wine stains or iron mould, wet the spot with the liquor and wash it thoroughly in clean water when the stain has disappeared.

N.B.—This Solution is Poisonous. If by accident any of it should be drunk, administer a large quantity of Oil and send immediately for a doctor.

COSMETIC POWDERS.

Light carbonate of magnesia.. .. .	5
Oxymuriate of bismuth	10
Precipitated chalk	10
French chalk	15

Mix and sift. The powders should be selected with care for their purity and whiteness. To obtain a special French chalk take 1 part of ordinary (tailors') French chalk, add 2 parts of vinegar, and let them stand for four days, frequently shaking, filter and wash well in water. To 100 parts of this prepared French chalk and 10 parts of spermaceti, without any other addition, make the cosmetic known as *Blanc de fard* or *Blanc de Paris*. French chalk is a necessary ingredient of all cosmetics, and imparts the necessary greasiness and smoothness.

The oxymuriate of bismuth (*Blanc de perle* or *d'Espagne*) is obtained by dropping a solution of bismuth in diluted hydrochloric acid, or in a weak solution of chloride of soda. The precipitate is well washed and dried out of the sunlight. For lower qualities of cosmetics, a phosphate of barytes is sometimes substituted for the salt.

The most perfect fineness of the powder is essential. It can best be secured by carefully sifting the mixture through silk.

There are three usual shades of cosmetic powders, white, rose, and yellow (*Rachel*). The formula given above is for the white, which is made more brilliant by the addition of $\frac{1}{2}$ per cent. of ultramarine. For the rose tint an addition of $\frac{1}{3}$ per cent. of carmine, or $\frac{1}{4}$ per cent. of eosin or ponceau may be employed. The eosin may be dissolved in spirit before adding. The yellow (*Rachel*) tint is obtained by the addition of $\frac{1}{2}$ per cent. of yellow cinnamon. The white cosmetic is for day use, the rose for night, and the yellow is intended for brunettes.

Suitable perfumes are equal parts of orange-flower and lemon oil for the white, otto of roses diluted for the rose, and ylang-ylang oil for the yellow; but this choice of perfumes is quite a matter of fancy and fashion.

Such cosmetic powders should be put up in elegant boxes in card or metal boxes, and labelled with some fanciful name, the tint being added in small characters. Below may be added words similar to the following:—"An elegant and extremely delicate complexion powder, quite invisible on the face, perfectly harmless, and imparting a high degree of smoothness, softness, and fineness to the skin."

EAU DE JAVELLE.

LIQUOR SODII HYPOCHLORITI.

Calcis chloratæ	100 grammes
Aque communis	3,000 "
Sodæ carb. (washing soda)	125 "

Put the chloride of lime in a tall clear glass vessel which is provided with an easily removable cover. Add water to make a stiff paste, and continue to pour in water, stirring all the while with a wooden rod till one half a litre has been added. To this pour the soda previously dissolved in the water, stirring well all the time. Let the vessel stand for five hours, then decant the fluid or filter it direct through a funnel with a little cotton-wool into a stop-mouthed vessel. The preparation should be kept in a cold dark place.

This is not an exact reproduction of the original *Eau de Javelle*, but it is a cheaper and better article.

[Supply it in dark bottles which are likely to be drunk from, and label it accordingly.]

PHARMACY ON THE HIGH SEAS AND IN STRANGE LANDS.

BY FRED. E. JOHNSON.

A few months ago I addressed to you a few notes upon the "Life Aboard an Emigrant Ship," being a first trip to Australia, which it pleased you to publish, and at the same time you expressed a wish to hear further from me. Having made the voyage to the Antipodes, and having seen and heard many things likely to interest the chemist and druggist, I will submit a few lines of my reminiscences to your publication in your inestimable journal, if you deem them worthy the space.

After a month's stay upon land, I received a letter from my former medical chief, Dr. Huxtable, offering me the berth of assistant and dispenser to him, aboard the steamship *Aberdeen*, and, having accepted it, received the official appointment a few days later, with instructions to report myself at Plymouth on September 9, 1884. On reaching Plymouth the ship had not arrived, and I employed my time profitably, exploring this most ancient port, and almost failed to see the *Aberdeen* cross the breakwater, so crowded was I with the balmy air and kindly folk of Devon. I tried to the quay in order to get off with the first boat, but one is naturally anxious to see the ark which is to buoy over a forty-day flood, and I am glad to say I was not disappointed. A more graceful-looking ship than the *Aberdeen* is not to be found, and, though small, she appears capable of weathering any storm. The decks were all covered with stores of all kinds lying about; but this is always the case with a ship about to proceed on a long voyage. Amidst nothing could be done, so, after a look all round, I went ashore again, and prepared a supplementary list of drugs, which the doctor judged necessary; and very rightly, too, for the only port we touched drugs were outrageously

The *Aberdeen* is the property of George Thompson & Co., Aberdeen, and is the pioneer steamship of the line, being a 1,000-ton burden, commanded by Captain J. Barclay, with a crew of seventy-five hands. Her engines are of a new type, "triple expansion," burning a remarkably small quantity of fuel, and making thirteen knots an hour or more with a variable breeze. The saloon was small but cozy and comfortable, right aft, the only nuisance of which was the noise of the screw; however, in a short time this became as sweet music. Two passengers, with the doctor and myself, the captain and officers of the ship, composed our small dinner-party, which was essentially Scotch, and that element predominated in every compartment.

The emigrants, numbering 611, were mostly of an exceedingly respectable class, and of all imaginable callings. Two matrons had under their charge some 260 single women, and, with the combined advantages of a very airy sleeping-compartment, aft of the engine-room, and of ample accommodation, kept them in very good health. Two iron girders divided this favoured grove from the rest of the ship, where single men and married people congregated. Of the former only eighty-eight came aboard, and such a small number was, consequently, easily managed. The married people, comprising a Scotch and Irish colony, with a sprinkling of English, had a large compartment forward, which was kept scrupulously clean with sand and holystone during the whole of the passage.

At noon, on Thursday, September 11, 1884, all this crowd, with their bag and baggage, are conveyed by the *Smearon* from the dépôt to the *Aberdeen*, and for a while all again is confusion. Every one has at last gained his or her bunk, and has taken possession of the table and utensils set aside for his or her use, and the captains of the messes have been selected from the galley, so that all are happy and quiet is restored. The anchor is weighed, and we steam away from old England once again, strange to say with few regrets, for most of our emigrants dream of an El Dorado, which is not to be found in Australia.

I found the dispensary a temporary structure amidships, which was at first not at all pleased with it, for a heavy sea would have left it a wreck if it had left it at all. Happily we had no weather so rough as to necessitate a retreat from my den shop.

The first few days one is busy, instructing the folk in the use of the many things which, as landmen, they had not seen before, more particularly holystone, which is truly a *lapis divinus*. The constables have to be instructed in their duties, and the compartments apportioned out, so that each is responsible for the order and cleanliness of a part. After the Belgravian experience this ship seemed very small, and my duties at first seemed lighter, but I had forgotten that we had a larger proportion of delicate females than heretofore; the single women had, shortly after our departure, some two score bottles of physic prescribed for them in a day. Sore throats, colds, hysteria, and constipation were what we had chiefly to contend with, and my *mixture purgans*, *pro tussim*, and *rhei* were continually requiring replenishing. Unfortunately, in each compartment there were one or two individuals more fit for a convalescent home than an emigrant ship, and how such invalid or lackadaisical folk ever got assisted passages, or, having got them, how they fared in a colony where, of all things, push is wanted, is beyond my ken. Medicine is also very popular aboard ship, because given in conjunction with some comfort or another; again, it is something to do and marks the time of day.

We had very rough weather for three or four days, and very few people ventured on deck until the 16th, when we made the "Salvages," a group of rocks between the Madeiras and the Canaries. At mid-day glimpses of the Grand Canary and Teneriffe were caught, and at sundown we ran close by the latter, the peak being unfortunately enveloped in clouds. Even thus it looked grand, for the clouds which capped it formed themselves into any number of imaginary peaks. Nothing of interest occurred until September 24, when some bolts in the crank-shaft coupling gave way, and we had to stop for about eighteen hours. Sharks and other ocean-pirates soon put in an appearance, and as another opportunity was not likely to occur we commenced sport by attaching a piece of pork to the log-line and floating it in the water. A shark approaches, bites, and, seizing the right moment, a running-notice is let down over the finny monster; we haul tight, and pull him aboard. Oh, what screaming! They are very violent when on the deck, and whip it with their tail, which is chopped off; then he is made to swallow a handspike, and thus receives his quietus, to be consigned to the deep, where he doubtless becomes the prey of his kindred. Two were so caught. Not a little curious were the suckers parasitical upon the shark's hide, having a disk-like appendage below the head, by which they adhere to their mighty host. Then, again, how pretty are the pilot fish, which always accompany the shark, but are very difficult to capture!

For a day or two we hear faint rumours of something wrong in the engine-room, a stay at St. Helena is thought probable, and on Sunday morning, September 28, we see "The proudest sea-mark which o'ertops the waves" looming in the dim distance, and at 11.30 we cast anchor very close in shore, there being deep water up to the edge of the stupendous cliffs rising almost 1,000 feet sheer from the water, and surmounted by the Ladder Hill Fort.

From the sea this island does not give one an idea of extraordinary fertility, the rocks being bare and evidently of volcanic origin, a few pine-trees on the higher hills being all the vegetation visible, while the town nestles between the hills, it being, in fact, one long street up the valley. It does not appear to be very strongly fortified, although the Ladder Hill Fort and the Redoubt seem perfectly inaccessible.

We stayed here five days, during which time the engineers were working night and day putting in a new crank-shaft, with assistance from H.M.S. *Opal*, which was at the time lying in the roadstead.

When one visits an island so rarely spoken of nowadays it is allowable to say a few words about it, and, as I took the opportunity of going ashore, I will give you my experiences.

Landing from our small boat, we are at once accosted by a number of the native small fry of all colours, from deepest ebony to white, not pure, but with a slight off tint, neatly dressed in cheap Manchester goods, and who run after us begging for a penny the whole of the way. We cross the bridge over the moat and under the gateway, where we find ourselves in a kind of square, on one side of which are the Government buildings, Post Office, &c., and on the other the cathedral, a poor enough edifice. Passing up a wide track

called the main street we come to Mr. George's pharmacy, under the trees, where I have been directed to leave my order. This shop, a fairly large one, not over clean, appears to be quite a rendezvous for the islanders, the weekly paper emanating from it. By the way, this is not saying much, the *St. Helena Guardian* being little more than a double sheet of waste paper covered with quack-medicine advertisements, and for which the poor deluded yamstalks pay fourpence.

The drugs were sent aboard, and proved of very good quality, except in the case of the disinfecting powder, which was damp, green, and innocent of available chlorine; but judge my surprise on receipt of a bill of 8*l.* for what at home might have been obtained for 3*l.* Salts, linseed-meal, and chloride of lime were charged 1*s.* 3*d.* per lb. all round, although I took 28 lbs. of each, the other goods being dear in proportion. We then retraced our steps and visited the other pharmacy, kept by a Mr. Jackson, who presides over a very well-arranged shop. He is evidently a very practical man of business, and does not believe in a sleeping partner merely, for one half of his shop is set aside to Mrs. Jackson, who sits resplendent amidst a general drapery stock. A well-known house in London supplies both drugs and drapery to this most enterprising firm.

I may now throw physic to the dogs, and turn to pleasanter things. We begin by ascending that world-famed Jacob's Ladder, which leads to the Fort, this name being misleading, since it is a substantial wooden stairway guarded by iron railings, having 699 steps, and rising at an angle of 39° to a height of some 600 or more feet. Making their way up with us were two coloured message boys, who run up and down nearly all day long, and seem to like it; coming down they simply place their bodies lengthwise from one rail to the other and slide. The mountain side is covered with cacti and the tobacco-tree, the yellow flowers of which have a most disgusting odour. Once up in the barracks we soon make friends with a fine Irish artilleryman, who shows us over the Fort, from which lovely views are obtained of the ships in the roadstead and of the surrounding country. Our military friend then volunteers to be our guide to the island, to which we gladly agree, and, having obtained permission from head-quarters, we make across country for Napoleon's tomb, which is situated about the middle of the island. Truly this is a lovely spot, and worthy of Byron's praise. Our pathway is first along green mountain slopes, then through sheltered vales, where streams meander to the sea, their banks thick with magnolias, lilies, and many other beautiful blossoms. Now we are crossing a piece of wild country full of prickly pear and aloes, these plants being the sign-posts of a desolate, good-for-nothing soil. The prickles from the cacti cause frightful irritation when they get in one's clothes, and, unfortunately, it is difficult to get along without brushing against them. From this part of the island all the high places stand out boldly, especially Diana's Peak, towering to a height of 2,704 feet, its sides clothed to the summit with rich sub-tropical growth. We are now overlooking the valley in which Napoleon's body once lay, and in descending we can admire the beautifully-proportioned Norfolk Island pines and Cypress trees, with which it is surrounded. There are none of the willows left, they having either been blown down or destroyed by relic-hunting tourists. We write our names in the visitors' book, and find it extremely interesting to turn over the pages for years back and see the many (in some cases familiar) names of people who have visited this resting-place of the sometime terror of Europe. A plain slab is all that marks the spot, surrounded by tall iron railings, and beside it a spring of deliciously cool water, which, it is said, the great Emperor very much affected. However, five years of dull monotony and more than military supervision, a gun being always fired on his leaving his house of Longwood and the signal passed through the island, were sufficient to kill him.

To-day very little of interest is found in St. Helena, except in that referring to Napoleon, and even his residence is stripped of all which would make it worth a visit. Longwood is a very humble structure, built mostly of wood, but very pleasantly situated about four miles and a half from Jamestown.

We return by way of the high road past the Governor's house, into the grounds of which we trespassed, and found them very pretty, and commanding magnificent views from all sides. We lunched at a hotel near here, the landlord of

which had not, so he assured us, set foot into Jamestown some three miles off, for twenty years or more. This we do very well to show the simple tastes of most of the St. Helenians, who are descendants of African slave-breeders and brought here by the ships employed in suppressing the slave trade.

The town is very lively at night, soldiers and the sailors walking about, mostly black girls, by the way, but the cases very good looking, and speaking excellent English. St. Helena is 10½ miles long by 6½ broad, and has an area of 47 square miles, with a rich volcanic soil, and a climate remarkably equable, the mean being 61° F. Bananas, pineapples, cinchona, coffee, and many other useful plants are shown to grow well here, and the island is said to be the finest vegetables in the world, and might support more flocks than it at present possesses. Why not avail of these advantages? Instead of this, from year to year it grows worse instead of better; trees are cut or blown down and never replanted, and, in fact, the whole place seems in ruin. So much for this fair isle of the sea; and in apology for so far digressing, I will rejoin the *Aberdeen*, which sailed for Sydney on Friday morning, October 1st.

We now looked forward to a long spell of rough sailing and decided to get as much amusement as possible while we were able. A newspaper had been running with great success from the first week, and caused no end of fun, by instructing the emigrants in the matter of Australian fever. The *Aberdeen Times* was printed in book form in Sydney, gave general satisfaction, both to myself (the editor) and to the third officer (the artist) and to the subscribers.

Frequent concerts, Christy minstrels, and a spell of work by the girls, afforded amusement on board, but the excitement of the voyage was the election, a piece of fun. R—— and myself were nominated candidates, and in due course we sent forth our addresses, at which we placarded in a variety of ways all over the ship, hence the Radical and I in the Liberal-Conservative interest. R—— made a speech from the bridge, supported by our committee, and then took a poll. I was returned with a large number amongst the married people and single men. We then proceeded to female suffrage; but, as I had, in my address, disapproved of women's rights, how could I expect to obtain their votes? and the Radical was returned by the women with an overwhelming majority.

Our passage across the great Southern Ocean was rough, and put an end to most deck amusements, although we found a mild form of excitement in hanging tobacco, in which, perchance, an unwary bird became entangled. The doctor thus caught one of the prettiest of the petrel tribe, the Cape pigeon, a beautifully marked bird, like a huge butterfly. Mollymauks, albatrosses, Cape terns, and other ocean birds followed in our wake the whole voyage, and formed food for thought and speculation.

We sighted land at Cape Nelson, west of Cape Town, on October 30, and had it in sight almost the whole way until on Saturday noon (November 1) we steamed into Port Jackson. I never saw the harbour so gay—a regatta day—as the boats passed under our stern, they greeted our emigrants with hearty cheers. Fortunately, some cases of small-pox occupied the quarantine ground, and we were exempted from the usual fumigation, and steamed right up to our anchorage in Neutral Bay.

We had reached Sydney with as many souls aboard as we started, there having been four births and four deaths. The twins born at St. Helena were weakly, and died shortly after; the other deaths were those of a child under two months, and of an old man from heart disease.

During the following week we lay out in the stream, in that time most of our emigrants got placed, there being in the case of the girls about three mistresses to a servant. Married couples got very good berths upon small farms and stations, and single men had all offered employment, but I am sorry to say many preferred hanging about town to making their way up-country. With strictest adherence to truth it may be said that no man will work need starve in New South Wales. At present labourers and navies are wanted, and men with capital, not professional, or men belonging to that all too plentiful class of clerks and shop-walkers.

I will once more take up the symbol of our profession, regretting that mortar and pestle are so little used in

onies, the chemists being dispensers and retailers of goods at home; but they are not pharmacists.

The drug trade in New South Wales appears to be in the hands of one or two large firms in Sydney, who, having secured their men, can supply them with what quality of goods they like. However, the chief druggists, such as Senior, McCarthy, Hume, Watson, and a few others, may be supposed to import direct, but I am afraid London houses sending representatives to Australia will find a very difficult field of work. During my stay in Sydney I took charge of a druggist's shop for a couple of days, and must say that it is a very pleasant life, mostly dispensing and small prescribing. The country, however, is very different, and the monotony, I fear, is something fearful; so much so that men in our and the higher profession are much addicted to drowning their sorrows in the flowing bowl.

The affairs of the Pharmaceutical Society were in somewhat of a revolutionary condition, the old president having retired and left the council. Their library seems to be about the best of its kind in Australia, and it was my privilege to receive a small donation to it from Mr. T. H. Hills, which was received with many thanks, more especially as it came from an ex-president of the home society.

Mr. Pinhey, the honorary secretary, was very busy during my stay in his capacity of deputy-coroner, a fearful amount of work being left to him, the coroner being engaged on several abortion cases, in which one of our society was unfortunately mixed, and which was creating quite a stir in Sydney. It is very much to be regretted that a man who is supposed to be fairly educated should lower himself to such a degree that he runs a fair chance of the halter.

The *Orient* sailed from Sydney Cove on November 22, and, staying at Melbourne five days, gave me an opportunity of seeing any Victorian friends, and becoming better acquainted with the city, and certainly the more one sees of it the more one likes it.

The bold way in which the streets are laid out, and the extent of the public gardens, strikes an Englishman; for, whichever way one walks, he is sure to come across some pleasant demesne or other wherein he may lounge and be happy. I visited the Melbourne Hospital, and found it a model of cleanliness and order, the kitchens and laundry being specially worthy of notice; and in the museum a wonderful specimen of "Elephantiasis" of a man's foot amputated above the ankle. The University is not complete, but bids fair to rival that of Sydney; the Wilson Hall, recently built, being a superb structure. The Natural History Museum is very fine and tastefully arranged, and one may study here without one's books, the walls forming a never-open volume. The University grounds are certainly picturesque, but want culture—the gardener must be on the bust, as they say here. The Royal Mint is well worthy a visit, which I made, seeing the process from crucible to perfect and beautiful coin.

Mr. Francis, whose acquaintance I made on my last visit, took me in hand this time, and showed me all he could to enlighten me concerning the state of the drug trade in Victoria. He himself has recently established the nucleus of a first-rate pharmaceutical laboratory, and is the only pharmacist I know here who makes most of his own preparations. I was taken to the offices of the Pharmaceutical Society of—Victoria, no! of Australasia forsooth. This far-reaching title has given great offence to the kindred society in the older colony whence I came, and I had a most interesting conversation with Mr. Shillinglaw, the secretary, and Mr. Francis, who justified its assumption by telling me that its members were scattered all over every colony. Individually, I think it bad taste to have taken such a title before a conference had been held of the pharmacists of Australasia. The latter is a very wide term, and means federation, a most desirable object, but not yet attained; and why should Melbourne, a town of yesterday, put on the purple now? Being on the subject of intercolonial grievances I will air another. The magnanimous Society of New South Wales has been in the habit of accepting the certificates of the sister Society at Melbourne as their own, and have admitted holders of such to membership. Has Victoria reciprocated this? No! and a poor fellow who passes in Sydney must enforce go up again at Melbourne should he wish to cross the border. In justice I must say that the Melbourne Society have a very good case, as there is no Pharmacy Act in New

South Wales, and consequently the examinations have not the force of law. Besides, no Preliminary examination is required, whereas in Victoria it is compulsory. From personal observation, as far as the written papers of the Sydney examination go, they are quite stiff enough; the only question is, do they demand a sufficiently high standard? I am sorely afraid I am trespassing on very dangerous ground; pharmaceutical politics in Australia are likely to become in course of time very lively indeed.

Well, to return, it is surprising the strides Melbourne and everyone in it make. The Pharmaceutical Society possesses a handsome building, standing upon a plot of ground granted by the Government, containing a lecture hall better than that at Bloomsbury Square, and a laboratory, well fitted in every detail, to accommodate a score or more pupils, with ample room for extension. A fair library and reading-room, and extremely good materia medica cabinets conclude the list. Mr. Shillinglaw informed me that they were negotiating with a gentleman in London, the son of a well-known West-end pharmacist and a Square prizeman, to undertake the duties of Professor of Chemistry and Pharmacy, and that all they were waiting for were the necessary funds, which it is hoped the Government will find. Should they succeed in getting this gentleman to Melbourne I am sure he will never regret it, the Society showing every sign of earning, if not justifying, the title of the Society of Australasia. We left Melbourne on Nov. 28 for Adelaide, where I much regret the stay being so short—only a day—so that there were no opportunities of making the acquaintance of any of the pharmacists. I really think Adelaide is the cleanest of colonial cities; the streets are wide, the buildings all new and handsome, the University being a very model. The Botanical Gardens I spoke of before, with its glorious old gum-trees. After leaving Adelaide a few days of rough weather, during which we caught our last glimpse of land off King George's Sound, and we round Cape Leuwin; being then fairly launched on the bosom of the Pacific Indian Ocean, we settle down to a quiet do-nothing novel-reading kind of existence for a few weeks, and are undisturbed by the elements, with the exception of a searching and scorching sun and a day or two of sickly, oily calm on the water. Cape Guardafui is sighted on December 23, and we round it into the Gulf of Aden, whose fortress we make the next day, and pass on through the Gates of Tears to spend Christmas week in the Red Sea. The change of temperature is so great that we all feel colder even than at home in winter, and the evenings in the Red Sea were miserable. We reached Port Said on the Sunday morning, and had passed as far as Ismailia by sundown, where we anchored, but I was not among the shore-goers, although the attractions were an Arab wedding and fête. From the canal this city looks beautifully wooded, and the palace of the Khedive is a very handsome building of stone.

We reached Port Said at six in the evening, and immediately the coal barges pushed off and came alongside. We all make haste to get down to the gangway and strike a bargain with the Arab watermen to get ashore out of the way of the noise and dirt of the coaling. A more diabolical scene cannot be imagined than this coaling at Said. Picture a huge square black barge, grimly lighted with coke fires all around and manned by hundreds of the sablest imps in creation; there they go, running up and down the planks with their load of black diamonds to the tune of some weird Arab song. On shore, one, Hassan Gazi, undertakes to convey us to the chief places of this Franco-Egyptian city, and begins by taking us to all the bazaars, where he tries to tempt us with all kinds of wares, clean and unclean, upon which he will get a commission. The streets are wretchedly dirty, and the people dirtier, especially down by the Arab bazaar. Before we leave for the ship the town has assumed somewhat the appearance of a wild orgy, everyone smoking, drinking, and cursing to their heart's content. I looked into the poor pharmacist's shop as I passed to the boat, and there he was with his assistants, working alike night and day, and went aboard more contented with my lot. The Mediterranean was beautiful, but cold, very cold; and one only half appreciates even Naples in such weather. We were there in the evening, but I did not get ashore, contenting myself with listening to the bargaining over the ship's side, and to the serenades from boats. We passed the Straits by day, and enjoyed the scenery, the Morocco coast being very grand; on the one hand may

been seen the town of Ceuta, while on the other our grand old rocky key stands off from the Spanish main as if it would have nothing to do with it. The country along to Tarifa is simply superb, and one never tires of gazing. We are soon made acquainted with the Atlantic rollers, and after no little tossing in the Bay of Biscay we are safely brought to port at Plymouth on Saturday morning, January 10, 1885. Thus ends my second voyage, it having taken but four months.

A PHARMACIST'S NOTE-BOOK.

DISINFECTION BY SULPHUROUS ACID.

A GREAT number of ailments which in former times were considered to be non-infectious are now looked upon as contagious, and it is believed that the time will come when disease will be completely prevented by hygienic, prophylactic, and sanitary measures. The art of the physician will then be needless, and the duty of keeping the population in good health will devolve upon the pharmacist and the sanitary engineer.

The DISINFECTION OF SCHOOLS has become a matter of paramount importance. It is placed almost beyond doubt at the present time that phthisis is contagious, and due to a minute bacterium (*bacillus*), which, like other septic bacteria and the tuberculous matter of the lung, can be communicated from the human being to other animals, such as the guinea-pig, so as to cause death in a comparatively short time. This septic matter has been made use of to discover which disinfectant is the most to be relied upon for purifying the air of schools after outbreaks of fever, &c. Slips of paper were impregnated with the tuberculous matter from the lung of a patient who had died of consumption, and were used for inoculating small animals. But before using these slips they were submitted to the action of various disinfectants, which, of course, interfered more or less with the inoculation. Now, of all the substances thus tried, the fumes of burning sulphur, *i.e.*, sulphurous acid gas, proved the most efficacious, and the slips which had been exposed to these fumes produced no effect at all when used to inoculate the small animals referred to.

Dr. Volin, to whom we owe this useful experiment, strongly recommends the process of burning sulphur for disinfecting schools, barracks, wards of hospitals, &c.; and, whether there has been any epidemic or not, the process should be carried out at least once a year.

A committee of the Belgian Academy has since arrived at the conclusion that sulphurous acid is preferable to any other disinfectant in this respect, and at Paris Professor Dujardin-Beaumetz has lately arrived at the same conclusion, namely, that sulphurous acid is the best of all disinfectants.

To disinfect a room or a hospital-ward in this manner, all the doors and windows being closed, about 1 oz. of sulphur for every cubic yard of space should be burnt, and the room kept closed for twenty-four hours after lighting the sulphur. The best means of avoiding danger from fire is to employ two earthenware vessels, the upper and smaller one containing the sulphur with a little spirit sufficient to cause it to ignite easily, the lower one containing wet sand. The burning of sulphide of carbon has been proposed, but it requires a special apparatus, and is then by no means free from danger.

PURE GLYCERINE.

The late eminent Professor of Chemistry at the Paris School of Medicine did good service when he drew our attention to the quality which MEDICINAL GLYCERINE should possess in order to prove really serviceable as a therapeutic agent. Under the name of "pure glycerine" it is by no means uncommon to meet with glycerine which has been purified by chemical means after its manufacture on the large scale; and this glycerine, when applied to the skin, produces irritation instead of the calming action which we expect from it. This irritating glycerine, though neutral to test-paper, contains certain compounds of formic acid or oxalic acid. When 100 cubic centimetres of it are treated with sulphuric acid, they yield 8 cubic centimetres of a gas which is found to consist of equal volumes of carbonic oxide and carbonic acid. Equal volumes of strong sulphuric acid (1.83 sp. gr.) and glycerine are mixed. The mixture becomes

heated and turns slightly brown; but it remains clear and yields no gas if the product so tested be appropriate for medicinal use. In therapeutics only the perfectly pure glycerine which will stand this test should be used; this is the *glycerine purified by distillation*. Glycerine which has been adulterated with sugar, gum, &c., is easily detected by well-known tests.

IMPROVED CINCHONA BARK.

No one can doubt for a moment that we live in an age of improvements. Almost everything which is essential to the comforts of life is susceptible, nowadays, of "improvement" of some kind. We all know how wines are improved, both at home and abroad; beer also receives bitter or thirsting compounds which the bonest brewer appears to have overlooked; new milk is improved by the addition of water; "raise the cream," or for other purposes; butter is said to be *ameliorated* by an addition of margarine; preserves are "flavoured" with a mixture of carrot-pulp and compounds, ethers, which the ingenuity of the modern "organic chemist" has placed at our disposal. In fact, *improvement* seems to be rampant everywhere; even home-grown tobacco can be improved at Hamburg as to pass into "Havana cigars" which possess a flavour that *connoisseurs* assure us can be only obtained in the island of Cuba.

But what will the druggist say to IMPROVED CINCHONA BARK?

There are such things as cinchona barks of poor quality, and some that are to a certain extent worthless. Can they not be improved? Is there no means by which the price of these inferior barks can be brought up to that of the superior article?

It is only too true that a certain kind of "improvement" has been effected of late years. This is done by means of a refuse product, known to chemists as *quinoidine*, which can be obtained at a reasonable cost from manufacturers of quinine. The inferior barks are moistened with an alcoholic solution of quinoidine and immediately rolled in a fine powder. The device is undoubtedly ingenious; it is difficult to detect the sophistication; but it can be detected, and if any of our readers would like to know the process by which this is done we shall be happy to supply the information in these pages.

After all, there is not very great harm done in the world by the introduction of "improved" bark; it is the principle of "improving" that is wrong. Unsuspecting dealers are thus caused to pay considerably more for their produce than it is worth; but as quinoidine really possesses febrifuge qualities, though not so pronounced as those of quinine, appears, from a purely medical point of view, to be a very ingenious method of getting rid of this superfluous quinoidine. The harm done to the manufacture of quinine or barks is not so great; but as regards the manufacturer of sulphate of quinine, he not only pays more than the bark worth, but the whole of the added quinoidine goes into residues, which gives to the whole concern not only a fraudulent but quite a comical aspect.

SOAP LINIMENT.

We never yet met a pharmacist who had not been bothered in the preparation of SOAP LINIMENTS, and we were truly pleased, for the sake of our younger brethren, when we met with some remarks published a short time ago by M. Méhu of Paris, on this subject. It was, however, an American pharmacist, Mr. C. H. Wood, who first recommended the exclusive use of oleate soaps for this purpose. He early perceived that whenever the soap used in making a liniment contains stearates or margarates, its alcoholic solution becomes cloudy on cooling.

Some time back the French Codex prescribed the use of soap made from the marrow of beef in the preparation of opodeldoc, and we know that the transparent soaps which are met with in perfumer's shops are all derived from animal fats, and are all more or less rich in stearine and margarine. But according to M. Méhu, oil of sweet almonds is one of the best substances that can be employed for making soaps destined to be used for liniments.

There is, however, another important consideration; the soap must be *well dried* in order that we may always operate upon the same weight of substance. Now, soaps contain about 40 per cent. of water more or less; they may vary from

shop to another to the extent of 5 or 10 per cent. When ap is dissolved in alcohol this water is added to the spirit, which thereby becomes considerably diluted, and this is the use of numerous failures in the preparation of soap liniments.

SULPHUR FOR SULPHURIC ACID.

One of the greatest of modern chemists, the late Professor Masius, once said that the degree of civilisation or of prosperity to which any country had attained might be measured with tolerable accuracy by the quantity of sulphuric acid consumed in that country. We never had any doubt of this. In fact, no one can fail to see that everything upon which modern comforts depend is based upon *sulphuric acid*. The whole of pharmacy, medicine, industrial chemistry, and thousand branches of manufacture, would dwindle away to mere nothing compared to what they actually are if we were deprived of it.

But as civilisation goes on increasing more and more sulphur consumed to form sulphuric acid.

If we put aside the SULPHUR mined in Sicily, and the vast deposits not yet worked in Iceland, we really do not know where any abundant supply of this valuable substance is to be looked for in nature except in deposits of iron pyrites or undie now worked in Norway and Spain on an extensive scale, as well as in some parts of America and Ireland. But such deposits do not appear to occur very frequently on the earth's surface. Meantime, we are extracting sulphur from the soda residue, and so working it over and over again in the form of sulphuric acid.

In spite of this wonderfully ingenious undertaking, the importance of which will increase as years roll on, we notice with some pleasure that an important discovery of sulphur has been made in the little island of Saba, about 110 miles north-east of St. Thomas. It is a volcanic island, that is, of oceanic origin, 11 miles in circumference, and rises 2,800 feet to the top of the ocean. The sulphur as mined in Sicily averages about 30 per cent. of pure sulphur; that of the island of Saba is said to be considerably richer! This island belongs to the Dutch.

Of recent years one or two deposits of sulphur have been found in California, and the soil round Clear Lake yields about half its weight of pure brimstone, which is largely worked, and now supplies manufactories of sulphuric acid erected in the neighbourhood.

THE SANITAS COMPANY (LIMITED).

THE annual meeting of the Sanitas Company (Limited) was held at the works, Bethnal Green, on February 17, Mr. H. L. R. Moll in the chair. From the report, and from the chairman's speech, it appeared that the balance to the credit of revenue for the past year was 5,201*l.*, their sales—which had amounted to 19,267*l.*—having exceeded those of 1883 by over 36 per cent. Their products continued to be greatly appreciated. The dividend of 7½ per cent. now proposed would make 12½ per cent. for the year. The debenture debt of the company had been paid off during the year by the issue of shares at a satisfactory premium. The directors had purchased from the patentees the remaining two-fifths of the foreign patents and trade-marks for Sanitas, and already a favourable arrangement had been entered into for Belgium. Mr. Bosanquet criticised the references in the report to the purchase of the foreign patents, and asked what had been said and to whom. He might be disposed to question the equality of the transaction.

The Chairman said the remaining property in the foreign patents was held by Messrs. Kingzett & Ziegler, and the directors had paid to those gentlemen 1,200*l.* in cash and 100 shares each for their portion of the exclusive rights. Mr. Bosanquet moved that this particular portion of the report be adopted, but only two other shareholders supported him. The Chairman, in answer to other questions, said the debenture holders had a right to be paid off with a 50-per-cent. bonus, and this had been obtained by selling 7,000 shares at a premium of 50 per cent., a City firm of brokers having undertaken to place those shares at that rate. The report as adopted, the dividend declared, the directors re-elected, and votes of thanks were passed, after which the shareholders and certain invited guests were entertained at a sumptuous luncheon.

GLYCERINE AND ITS USES.

IN the months of March and April, 1883, and in January and February, 1884, we published papers which were read before the Chemists' Assistants' Association by Mr. F. H. Alcock, entitled respectively "Glycerine and its Applications to Pharmacy," and "Glycerine and its Impurities." Mr. Alcock has continued his observations on this fruitful subject, and we have lately received a paper read by him before the Midland Chemists' Association, at Birmingham, on February 25, 1885. From this we extract a number of useful suggestions as to the uses of glycerine, in addition to those previously published.

GLYCERINE IN TOILET PREPARATIONS.

Glycerine is perhaps well known to be a useful addition to the sulphur type of lotion for the hair, as the sulphide of lead which is supposed to be formed renders the hair almost as stiff as a board without some such addition.

A very recent hair-dye, and one which is said to be good, may be made by dissolving freshly-prepared ammonio-tartrate of bismuth, or the ordinary scale citrate of bismuth and ammonia, in weak glycerine, and mixing this with a solution of hyposulphite of sodium in glycerine and water, and finally diluting with more water.

Teeth-lotions have also come much into use, and of the many formulae published the following is a type:—Tincture of quillaia, eau-de-Cologne, water, borax, glycerine, with colouring. Such a combination is as excellent for its purpose as it is elegant in appearance.

Almost all cosmetic solutions are greatly improved by the addition of a little glycerine. Of these we may name freckle-lotions, zinc-oxide and rose-water lotions, calamine lotions, &c.

Liquid starch glosses and finishes have glycerine in them as a *sine quâ non*. Here is an example from the *Popular Science News*:—Spermaceti, 1 oz.; gum arabic, 1; borax, 1; glycerine, 2½; water, 14½; perfume, q.s. Three spoonfuls to be added to about 4 oz. of boiling water.

Lime-juice and glycerine inseparable may easily be made by the subjoined formula, but I cannot say how much will be the percentage of glycerine. A saturated solution of borax should first be prepared. Here is a note I made a long time ago:—"One drachm of powdered borax to be dissolved in 21½ drachms of distilled water, and during solution warmed slightly to keep the temperature just a few degrees above that of a summer's day, and to ensure accuracy it is perhaps better to weigh the materials into a large-sized 3-oz. bottle. The oily material consisted of 14 parts of oil of almonds and 2 parts of castor oil, thoroughly mixed. To this quantity of mixed oil was added, all at once, 4 parts of the solution of borax as named (each being accurately measured). On being well shaken a very white uniform emulsion which did not separate resulted. I believe soap is sometimes added to this preparation to increase its white appearance and to prevent separation, but I do not know that it is a desirable addition, or that it is effectual in preventing separation." I have, up to this period, had no fault to find with my note.

Glycerine Jelly.—This combination may be made opaque or transparent. For the former, soap, glycerine, almond oil, and perfume are used; for the latter, isinglass, gelatine, or transparent soap, 1 oz., dissolved in glycerine and a little added water, this usually being a perfumed water.

GLYCERINE IN THERAPEUTICS.

I hope, by the introduction of a few brief notes under this head, that we shall not be doing any serious injustice to the medical profession.

Glycerine is reputed to be a safe and very effectual emetic for infants. As a substitute for cod-liver oil, iodised glycerine with iodide of potassium forms a good tonic, &c., for phthisical patients whose stomachs are unable to bear this oil.

A combination of a fluid extract of *Cassara Sagrada*, glycerine, and a little tincture of *nux vomica* is highly praised

as a tonic laxative. Ferric chloride and its preparations are very astringent, and hence, when taken internally for some time as a tonic, are liable to do harm. This astringent effect is greatly counterbalanced by the addition of glycerine, with which this chalybeate is perfectly compatible. (See, however, a paper by Mr. Schacht, *THE CHEMIST AND DRUGGIST*, September 15, 1882.)

An excellent simple remedy, in place of the old-fashioned rum and figs, for tightness of the chest and the cough of old people, is a mixture of 40 fluid drachms of glycerine, 10 of rum, with 1 minim of oil of anise or peppermint.

The combination, as an aperient, in doses of 1 drachm, of glycerine and castor oil in equal parts, is now so old that it has almost sunk into oblivion, but it is undoubtedly, when prepared *secundum artem* and with a little flavouring agent, a valuable and highly efficacious elegant preparation. The activity of the oil is said to be increased.

An excellent application for scalds and burns is composed of equal parts of glycerine and oil of peppermint. Glycerine, as an external application, is said not to be absorbed by the skin, hence it is of especial value as a basis when such agents as mercuric chloride, iodoform, &c., have to be superficially applied in cases of certain skin diseases, as scabies, &c. One-and-a-half drachm, dissolved in 3 fl. oz. of glycerine, is reported to possess valuable powers in the treatment of scabies, &c.

Iodised glycerine prevents the pitting which may result after an attack of small-pox. As a liniment, in combination with chloral hydrate, camphor, &c., it receives the commendation of sufferers from rheumatism.

When vapourised in a suitable apparatus, and its fumes inhaled, glycerine is a simple expedient in cases of bronchial affections and distressing coughs; and here we may remark that many eminent vocalists are fully alive to the value of this substance as a voice-strengthenener and throat-invigorator.

Salicylate of sodium, dissolved in glycerine, has its medicinal effects greatly enhanced. A good remedy for dyspepsia consists of pepsine, sherry, glycerine, and tartaric acid.

Naphthalene, recommended as an antiseptic agent with a view to checking diarrhoea, and said to be efficacious in cases of intestinal catarrh even when chronic, may be administered in glycerine, in which it is soluble when the solvent is slightly warmed. Indirectly connected with glycerine is the use of nitro-glycerine, as a 1-per-cent. solution in diluted alcohol, for neuralgia, &c.

Mercuric iodide, with glycerine, is a good paint for corns.

An excellent simple febrifuge drink is thus made:—Glycerine, $\frac{3}{4}$ j.; citric acid, $\frac{3}{4}$ ss.; water, $\frac{3}{4}$ vj. Dose, 1 to 2 tablespoonfuls every hour for an adult.

GLYCERINE IN THE ARTS.

Glycerine is very largely used in the manufacture of printing, stamping, and letterpress inks, as also in the preparation of inks for the numerous forms of "graphs." The following is an example of an indelible-stamp ink taken from the *Pharmaceutical Record*:—Sodium bicarbonate, 22; glycerine, 85; gum arabic, 20; nitrate silver, 11; solution of ammonia, 20; Venice turpentine, 10; mix according to art. For ribbon-ink:—Concentrated glycerine and alcohol, of each 15; aniline, $\frac{1}{2}$ oz. Blacking of excellent quality can be made by means of a judicious combination of soot, glycerine, oils, &c.

A good "graph" is readily made from Russian glue, 2; water, 1 $\frac{1}{2}$; glycerine (1:260), 5 parts by weight. As these sometimes go mouldy, we may mention a wrinkle which will prevent the proneness of gelatine to this trouble. It is simply to dissolve a few grains of boric acid in the glycerine before incorporating with the other materials.

In the process of vulcanising indiarubber, glycerine is found to be of service. It appears that the indiarubber acquires properties which protect it from oils and fats without interfering with its other properties.

For silvering and gilding glass we find our subject again in request by reason of its reducing action on the salts of silver and gold, and also because the deposit thus produced is of a brilliant metallic lustre. An ammoniacal solution of nitrate of silver is first prepared, and in it is poured a little solution of caustic potash, and then a few drops of glycerine. It is then ready for immediate use, since reduction begins at once, which process is accelerated if a little ether or alcohol be also added to the mixture. The result is said to be most

brilliant when a moderate heat is used, and darkness is said to favour the adhesion of the deposit to the mirror.

A polish for leather is thus made:—Shellac, 200; spirit, 1,000; Marseilles soap, 25; spirit, 25 per cent., to dissolve soap, 375; glycerine, 40; to which is finally added 5 grains in 125 spirit.

Mineral-water manufacturers are now availing themselves of the advantages to be derived from the use of glycerine in the preparation of the liqueurs and flavours, &c., which are much in request as beverages.

Glovers use large quantities of yolks of eggs in certain processes involved in the manufacture of kid gloves, and the addition of a few per centums of glycerine is said to be a decided advantage. Glycerine preserves the yolks for a long time.

In the preservation of anatomical and other specimens value is well established, but a little point will perhaps be useful to bear in mind. About six years ago a friend presented me with a nice specimen of the ripe fruit and a leaf, with tendrils, of the *Bryonia dioica* which I placed in a bottle with some glycerine and water, but now, although in good condition as far as preservation goes, I find the berries have become wrinkled and some have collapsed, which, I believe, is probably due to a process of osmosis, the liquid within the fruit being of a different gravity from the preservative fluid. If I had first ascertained the gravity of the juice, and made my glycerine solution of a similar gravity, if such had been possible, I think the shape of the fruit would have been retained.

ARTS.

For the preservation of cider, glycerine of salicylic acid is admirable, a very small quantity keeping it good for over twelve months.

A solution of alum, arsenic, and nitre in glycerine is said to be an admirable preparation for "curing" animals' skin. I have a cat's skin which has been successfully prepared with this combination.

To render corks impervious, soak them several hours in a solution composed of $\frac{1}{2}$ oz. glue or gelatine, $\frac{3}{4}$ oz. glycerine and a pint of water heated to 50° C. After such a treatment they are nearly proof against many corrosive liquids but are more completely so if they are first well dried and then dipped in a mixture of 4 parts of paraffin and 1 vaseline, or simply ordinary petroleum oil.

NITRO-GLYCERINE.

The easiest and safest method of preparing this explosive is that which was first introduced by Messrs. Boutmy and Foucher, and which as a new and safe method obtained the prize of 2,500f. offered by the French Academy of Sciences. First by converting the glycerine into sulpho-glyceric acid and in this form bringing it into contact with the nitric acid to which an equal weight of sulphuric acid has been previously added.

The details of the process are as follows:—

One part by weight of pure glycerine (1:260) is thoroughly mixed with 3 parts of strong sulphuric acid (1:842); there at once a considerable evolution of heat, and the glycerine slightly discoloured. In a separate vessel a mixture of 3 parts (also by weight) of sulphuric acid and 3 parts of nitric acid (1:4) is made, and both mixtures are then allowed to cool down to about 15°C. The next step is to transfer the two cooled liquids to a tall cylinder, and well stir them together, when a slight rise in temperature (to about 20° or 25°) takes place, followed after the lapse of half an hour or so, by a cloudiness of the acids, due to the separation of minute drops of nitro-glycerine. After standing for about twenty hours the formation of the oil is complete, the whole of it having risen to the surface of the acid mixture; it may then be syphoned off, dissolved in an equal volume of ether to facilitate its separation, shaken up with successive portions of water until the washings fail to reddens blue litmus, and finally heated on a water-bath until its weight remains constant. The nitro-glycerine will now be light brown in colour, and should have a specific gravity of 1.6, and should detonate readily and powerfully when fired by percussion or by means of a fulminating charge. This substance may be easily recognised by the violent but transitory headache which is experienced on placing an exceedingly small quantity (1-100th of a grain or thereabouts) on the tongue.

In the old processes the nitro-glycerine separates almost

stantaneously, and rises in part to the surface, thus rendering washing difficult. In the process above described its motion is gradual and extends over a long period of time.

PHYSICAL AND CHEMICAL USES OF GLYCERINE.

The barometric records made for the *Times* newspaper are in a glycerine barometer. In place of the column of mercury of about 30 inches length, a tube about 27 feet long used containing $\frac{3}{4}$ of a gallon of glycerine coloured red with aniline. The great advantage of this fluid is that readings can be taken more accurately, for, when subjected to the weight of the atmosphere, while mercury would move 1-10 inch, the height of the glycerine column would be moved through a space of 1 inch. One objection has to be provided against, the hygroscopic nature of glycerine, its power of absorbing water from the air being very great. This is remedied, however, by putting a layer of heavy petroleum oil in the top of the barometer. There is a glycerine barometer at the Kew Observatory, which also required for its construction $\frac{3}{4}$ of a gallon of glycerine, and, in order to obtain the correct height, the tube passes through two rooms, the cistern being in one and the column read off in the one above.

This fluid, on account of its high boiling-point and low freezing-point, is of constant use in scientific experiments.

Carbolic acid is said to be an adulterant of ordinary or food-grade creasote. The former is well known to be soluble in glycerine (glycerinum acidi carbolici), and on the addition of water forms a clear solution. Creasote forms a nearly clear solution with this liquid when of sp. gr. 1.260, but on addition with water it separates out again.

When gallic acid is warmed for a long time with glycerine, taken at a low temperature, pyrogallol results, and this process taken advantage of by photographers, who use a combination of glycerine and pyrogallol or pyrogallol acid in some of their operations.

A delicate test for glycerine is to take 2 drops of carbolic acid with 3,000 to 5,000 drops of water, and add 1 drop of solution of ferric chloride; in the absence of glycerine a pale colour results, but if it be present the colour does not fade. If colouring matters or sugar are present in the expected liquid they must first be removed. To do this the liquid is added to the liquid to be tested, with some powdered marble, and evaporated, and the mass then treated with a mixture of alcohol and ether; the alcoholic solution evaporated to remove ether and alcohol, and the residue mixed with water, and the test applied, first neutralising any alkali, should any be present. This may be available as a qualitative test for the presence of glycerine in beers, wines, beverages, &c.

The value of glycerine jelly for mounting microscopic objects needs only a passing comment; its manipulation is very easy, and well suited to the tyro embarking in the study of histology of animals and plants.

The fact that glycerine when present in a solution often greatly interferes with the usual chemical reactions should always be borne in mind. Thus ferric bromide mixed with glycerine, and then sulphocyanide of potassium added, gives the usual red colour, but ether does not remove that colour and impart it to itself. Again, if ferric bromide be added to sulphocyanide of potassium, and then ether added, we get all that we expect, but on the addition of glycerine the ether becomes colourless again. Glycerine also removes auric chloride and uranium nitrate from their ethereal solutions; and, too, an ethereal solution of mercuric chloride, when treated with glycerine, is found to hand over the greater part of its solvent to the latter solvent.

Glycerine has very recently been used in a process for the separation of chemically pure metallic bismuth. Ordinary commercial bismuth is dissolved in dilute nitric acid, and the solution mixed with water until turbidity begins to appear; then a sufficient quantity of fixed alkali is added in solution to precipitate the bismuth and render the solution alkaline; then the volume of the alkaline solution used is now added, and glycerine in sufficient quantity stirred in to re-dissolve the precipitate; filter if necessary. The filtrate is now mixed with a solution of pure glucose (1 : 6 or 8) and laid aside for some time in the dark; filter again. The filtrate is now boiled and well stirred, when finely-divided bismuth is deposited, which must be filtered away, washed, and dried as tidily as possible.

(To be continued.)

BRITISH PHARMACEUTICAL CONFERENCE.

A MEETING of the Executive Committee was held at 17 Bloomsbury Square, W.C., on Wednesday, February 25, at 4 p.m. Present: Professor Attfield (vice-president), in the chair; Messrs. Atkins, Bengel, Cartelghe, Ekin, Hills, Symons, and Williams; and Mr. Plowman and Dr. Thresh (hon. gen. secs.).

The minutes of the previous meeting were read and confirmed.

Letters of apology for non-attendance were read from Mr. J. B. Stephenson (president), Professors Redwood and Bentley, and Messrs. Bell, Borland, Brunker, Dott, Kay, Reynolds, Sim, and Strachan.

Mr. Plowman said that this was a special meeting to consider a communication from Mr. R. Bremridge, the honorary general secretary of the International Pharmaceutical Congress of 1881. In his communication Mr. Bremridge stated that he had received a letter from the president and secretary of the Provisional Committee of the sixth International Pharmaceutical Congress, to be held this year in Brussels, suggesting the desirability of altering the date of the British Pharmaceutical Conference this year, so that members might be able conveniently to attend both meetings. Mr. Plowman explained that the business of the International Congress will not terminate until September 6, and that of the Conference will, if no alteration be made, commence on the evening of the following day. Under these circumstances, he had written to Mr. Strachan, the local secretary at Aberdeen, requesting him to ascertain the opinion of the local committee on the subject. He had also asked Mr. Stephenson to be good enough to ascertain the general feeling in Scotland, and he (Mr. Plowman) had communicated with all the members of the Council of the Pharmaceutical Society of Great Britain, as well as other leading representative pharmacists in England and Ireland. Mr. Strachan replied that it was "the unanimous opinion of the Aberdeen Committee that it would be very injudicious to change the date of the meeting." Mr. Stephenson wrote to say he had "found the opinion of Scottish pharmacists practically unanimous against altering the date of the Aberdeen meeting, as already arranged." The great preponderance of opinion of other leading pharmacists in England and Ireland, including members of the Executive Committee, who were absent from this meeting, and who had written on this subject, was also against any change.

Dr. Thresh reported that he had consulted every member of the Board of Examiners in London, and found practical unanimity of opinion that no change should be made.

After some discussion, on the motion of Mr. Ekin, seconded by Professor Attfield, the following resolution was unanimously agreed to:—

That, in consideration of the fact that the great mass of opinion of pharmacists in Great Britain and Ireland is against any change, it is undesirable to alter the date of the 1885 meeting of the British Pharmaceutical Conference.

The next general meeting will, therefore, be held in Aberdeen on September 8 and 9, 1885.

It is related that a certain German maiden once presided at a mineral-water fountain, at which there were only two kinds of syrup—vanilla and lemon. To her came a young man and said: "I want a glass of soda without syrup." "Ya," replied Katrina; "boot vot kind of syrup you want him mitout, mitout vanilla or mitout lemon!"—*Min. Water Trade Recorder*.

ENTERTAINMENT.—On Thursday evening, February 19, the employees of Messrs. Hovenden & Sons' City Road establishment gave their fourth annual musical and dramatic entertainment in the Great Hall, Cooper Street, one of the firm presiding. The hall is said to be capable of seating 2,000 people, and was crowded. There was a long programme, admirably sustained throughout. The band, composed of more than fifty performers, is decidedly above the amateur average, and rendered several pieces in excellent style. The singing and some of the recitations were very good. A farce, entitled "Dearest Mamma," concluded the entertainment.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks' Journal*, February 11, 1885, gives the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications relating to patents, designs, or trade marks to be addressed to H. Reader Look, Esq., Comptroller-General of Patents, Designs, and Trade-marks, Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

From the "Trade Marks Journal," February 18, 1885.

DUAL, in white letters on black ground, and a peculiar design for glass bottles and aerated waters. Dan Ryland's Hope Glass-works, near Barnsley, Yorks. Nos. 40,681 and 40,682.

SAVED BY SAMARITAN SALT, and a picture for a chemical used in medicine. Connell & Connell; trading also as "Sage & Co.," 14 Tavern Street, Ipswich. No. 41,679.

THE "INVICTA," for chemicals and chemical preparations used in photography. J. Wm. Jones, Palmerston Buildings, 138 and 139 Old Broad Street, E.C. Nos. 41,703.

ELYSIA, J. M., and a shield for perfumery. James Merrell, 1 Queen's Terrace, Camden Road, London. No. 41,720.

TIC-TAC, with shield and monogram for chemical medicine for man. Joseph Weston, 113 High Street, Finton, Stoke-on-Trent. No. 41,776.

PUNCHETTE, a non-alcoholic cordial. Geo. Hy. Skinner, 13 North Street, Exeter. No. 41,803.

EXTRAIT D'EAU DE COLOGNE DOUBLE, and a label with space for name. J. M. Farina, Jillich's Platz 4, Cologne. No. 41,823.

JUNIPER PILLS, with a label, name, and address. George Mee, 79 Grosvenor Road, Highbury New Park, London. No. 41,853.

PURE OXYGEN TABLE-WATER, with signature. Brin Frères, Civil Engineers, Paris. No. 41,894.

DR. WRIGHT'S SANITARY NIGHT LIGHTS, with label, &c. The Hygienic Candle Co., 76 Coleman Street, E.C. No. 42,017.

OUR DARLING'S BOTTLE and OUR BABIES' BOTTLE, printed on a picture of the globe, for feeding-bottles. Kilner Brothers, Great Northern Goods Station, King's Cross, N. Nos. 42,009 and 42,165.

LIGHTNING-FILLING MACHINE. An aerated-water filling machine. James Galloway, 100 Bark Street, Bolton, Lanes. No. 42,109.

CLEOPATRA, for all goods in Class 48 (perfumery, &c.). Chas. Ang. Morris, 21 Chancery Road, Herne Hill, Surrey. No. 42,159.

From the "Trade Marks Journal," February 25, 1885.

ED. PINAUD, with a basket of flowers, &c., for perfumery and scented soaps. Emile Meyer, 37 Boulevard de Strasbourg, Paris. No. 39,886.

THYMO-CARBOL and THYMO-PHENOL, with signatures, for chemical substances used in manufactures, photography, and research. F. C. Calvert & Co., Bradford, Manchester. Nos. 40,184 and 40,187.

SENIER'S CONSTITUTION BITTERS, and label with directions, &c., white on black ground. Harold Senier, 83 Norwood Road, London, S.E. No. 40,237.

THE "SIMPLEX" SODA-WATER MACHINE. James McEwen, Blake Street Works, Stretford Road, Manchester. No. 40,823.

THE NOUVELETTE PRESERVATIVE TOOTH-POWDER, A. Z. (LONDON). Samuel Jennens, 14 Osney Crescent, Camden Road, N.W. (gentleman). No. 41,197.

THE YARA YARA PERFUMED SOAP. Wm. Mill's, trading as "Milton Chemical Company," 49 Bath Street, Glasgow. No. 41,457.

THE UNIVERSAL SAMPLE-BOX, with picture of a screw for boxes for samples made partly of wood. Thos. Christy & Co., 155 Fenchurch Street, E.C. No. 41,458.

CONDENSED SWISS MILK, EXHIBITION BRAND, with label, &c. John Cook & Sons, sole agents, 2 Old Bethnal Green Road, London. No. 41,602.

KOSMIAN, with a design, for ink. The Kosmian Manufacturing Company, Boston, Massachusetts. No. 41,722.

Picture of a Balloon, for stoppers for bottles made of indiarubber or gutta-percha, and for those of other materials and for those of glass. Waltham Brothers, Stockwell, Surrey. Nos. 41,837 and 41,838.

WALKER & WALTON'S CARBONATED WINES, on picture of a vine-leaf, for aerated waters. Walker & Walton, 20 and 22 Newington Butts, S.E. No. 41,962.

THE LEO, for chemical substances used in medicine, for substances of food, and for perfumery and toilet articles. Robert Clay, accountant, 54 Weston Street, Upper Norwood, S.E. Nos. 42,022 and 42,024.

Picture of a Bow of Ribbon, for lemonade, being non-alcoholic and non-aerated beverages. James Sutton Bryant, 32 Woking Road, Cardiff. No. 42,178.

WRIGHT'S CHICKEN-REARING FOOD, with label. John Henry Wright, Eastbrook Lawdon. No. 42,231.

SPARKLING COCOA, SPARKLING COFFEE, and SPARKLING TEA, aerated alcoholic beverages. Davidson & Co., Queensbridge Street, London. Nos. 42,257, 42,258, and 42,042.

THE OLDHAM MINERAL-WATER COMPANY, with a design, Waterloo Union Street, Oldham, for aerated waters. No. 42,283.

LITHIA WATER, with label and address. M. B. Foster & Sons, 27 Old Street, Bond Street, London. No. 42,336.

From "Trade Marks' Journal," March 4, 1885.

SPRATT'S PATENT CARDIAC POWDER, A TONIC FOR PHEASANTS. Thomas Spratt's Patent, Henry Street, Tooley Street, Southwark. No. 39,741.

THE SELF-WASHING and WOMAN'S FRIEND, common-soap, detergent. Lever & Co., Market Street, Wigan. Nos. 41,597 and 41,859.

J. DELCROIX & Co., 158 NEW BOND STREET, LONDON, with design for toilet articles and violet powder. E. F. Langdale, 72 and 73 Ham Garden, E.C. No. 41,624. Used upwards of fifty years before 1871.

COMPETITION TOILET SOAP, BOUND TO WIN. F. S. Cleaver & Sons, 34 Red Lion Street, Holborn, London. No. 41,723.

The single letters A, B, C, D, E, F, for vinegar. Hill, Evans & Co., St. Martin Street, Worcester. Nos. 42,064 to 42,069. Used more than thirty years before December 9, 1884.

VICTORIA HEXAGON, for dog biscuits. Wm. Baker & Sons, Redcliff Hill, Bristol. No. 42,217.

EMEROLINE, for medicinal tinctures and extracts. Henry Sharp, 32 Epworth Park Road, Leeds. No. 42,265.

CHARDOSH, for condiments, sauces, and relishes. H. S. Mendelssohn, 27 Cart Road, South Kensington. No. 42,347.

TABLOIDS, and a design, for chemical substances used in medicine and preparations of food. Burroughs, Wellcome & Co., Snow Hill Buildings, Holborn Viaduct, E.C. Nos. 42,378 and 42,379.

CONSERVINE, and a design, for preparations for preserving alimentary substances. Conservine Chemical Company, 46 Trafalgar Road, Old Kent Road, S.E. No. 42,381.

MANHATTAN HORSE and CATTLE FOOD. Thomas Holmes, 19 and Crampton Street, Bradford, Yorks. No. 42,397.

Picture of Science Trimming the Lamp of Life, for medical preparation. James Mackenzie, trading as "Mackenzie & Co.," 45 Forest Road, Edinburgh.

From "Trade Marks' Journal," March 11, 1885.

MARQUETERINE, for the imitation of inlaid wood, &c., and a label, for wood-stains. Jabez Barnard & Son, 19 Berners Street, Middlesex. No. 40,524.

MULLEDYNE, a proprietary medicine. Timothy Vincent Riordan, exhibition agent, trading as the "Mullein Manufacturing Company," 1 Whiteley Road, Upper Norwood, S.E. No. 40,817.

BARRETT & Co.'s FRENCH GLYCERINE KID-REVIVER, and a design. Mary E. Battersby, trading as "Barrett & Co.," Oak Lea, Sale, Chester. No. 41,298.

SULPHALUMINE and ALUMINO-FERRIC, for chemical substances used in manufactures. Peter Spence & Sons, the Manchester Alum Works, Manchester. Nos. 41,879 and 41,881.

SUNFLOWER BAKING-POWDER, BOUND TO RISE, and a label. British Tea and Trading Association, 118 Southwark Street, London. No. 41,933.

ARNOLD'S PURE GLYCERINE SHAVING-CREAM, as a label. Walter Stocks Moon, Springfield, Fifeshire, N.B. No. 42,137.

LUNN'S WORCESTER COLLEGE SAUCE, and a design. Thos. Lunn Worcester. No. 42,176.

CHLOROZONE, a rinsing and bleaching preparation. Jas. R. Holmes, trading as "Holmes' Ozone Company," 12 Waterloo Street, Glasgow. No. 42,252.

LEMONTINE, in a design, a fluid for producing hair on the human head. Graham Lemon, Yew Park, Clontarf, Dublin. No. 42,362.

NIGHT SUN, for cod-liver oil and medicated articles for human use. John S. Morris & Son, Victoria Bridge Oil-works, Manchester. No. 42,483.

St. K's CARBOLIC JELLY, an ointment for human use. Samborne Cook, 76 Radford Road, Hyson Green, Nottingham. No. 42,574.

ification of the Register. On the motion of the Porous Plaster Company, carrying on business at Sing Sing, New York State, the words "trading as The Porous Plaster Company" have been expunged where they occur in the registered name of Henry Daubeny Brandreth, as owner of the marks 31,852 and 31,853.

The Druggists' Lawyer.

THE DUTIES, RIGHTS, AND RESPONSIBILITIES OF COMMON CARRIERS.

DRUGGISTS, in common with tradesmen generally, have many dealings with railway companies and other common carriers of goods; and questions frequently arise between the carriers and the consignors or consignees of goods carried by them. We, therefore, think that a brief exposition of the law affecting the relations between carriers and persons on whose behalf they carry goods may be interesting and useful to our readers.

A common carrier is one (whether company or individual) who accepts from all comers goods for conveyance from one place to another for reward or hire agreed to be paid to the carrier according to the nature, weight, or bulk of the goods and the distance which they are to be conveyed. The conveyance may be either by land or by water, but in all cases the same general principles apply to the contract between the parties. These general principles may profitably be considered in the first instance, before we review briefly the legislative enactments affecting railway companies, &c.

One of the most important of the common law principles affecting the subject in question is the duty of the carrier to take care of the goods entrusted to him in the way of his business, a duty so absolute that nothing can absolve him from the performance thereof except the act of God or the enemy's enemies. When goods are entrusted to a common carrier he is bound to take care of them until they are delivered at their destination, or otherwise disposed of at the direction of the consignor, who retains a right of stoppage *in transitu* until actual delivery, as we shall more particularly explain hereafter. In plain before we conclude. Thus, when a carrier loses goods entrusted to his care, or is robbed thereof, he must make good the loss, although no negligence could be charged against him in either case. Even though a special contract be entered into, the carrier will have to take all reasonable care, and will only be exonerated in respect of losses coming strictly within the exception in the special contract. A curious illustration of this was the case in which a carrier undertook to carry goods safely and deliver them at their destination, "robbers and dangers of the road excepted." Part of the goods were secretly stolen by the way, and it was held that the carrier could be compelled to make good the loss, as a secret pilfering was neither a danger of the road nor a taking by robbers within the meaning of the contract, which evidently contemplated robbery with violence, and not theft which might have been guarded against by due vigilance. But if the owner of the goods accompanies the carrier for the purpose of taking care of them, he thereby relieves the carrier from that duty.

There are many exceptions to the definition of common carriers which we have given; and it is not every one who carries goods for hire who is a common carrier; those who only carry in pursuance of special contracts are within the exception, and therefore are not included in the scope of our

present inquiry. In each case the mutual relations of the parties must be decided according to the special contract between them. On the other hand, common carriers may enter into special contracts; and when they do so their common law liabilities are modified thereby; though anything not provided for in the contract will remain to be dealt with according to the original law affecting the case if there had been no contract. It is a general rule that a contract cannot be stretched beyond its express terms; and where it is silent the parties will be held to have intended to stand upon their legal rights as if there had been no special contract between them. Of course, this only applies to cases which are clearly beyond the scope of the agreement, and left unprovided for thereby.

A common carrier is bound to accept and carry all such goods as he professes to carry for all persons who are willing to pay the regular charges for the same, if he has room in his vehicle for the goods tendered to him for conveyance. He professes to be the servant of the public, and he must serve the public without making any difference between those who are willing to employ him. He is also bound to deliver the goods within a reasonable time; but what is a reasonable time may often be a matter of dispute between the parties, and must in each case be determined by the special circumstances and the nature of the goods, as to their being perishable or otherwise. If he only professes to carry certain descriptions of goods, he cannot be required to carry goods of a different nature: nor can he in any event (as a common carrier) be compelled to carry dangerous goods; for he would thereby render himself liable to make good all the articles which might be destroyed or damaged while in his charge in consequence of the proximity of such dangerous goods. But if any dangerous goods are sent by a carrier without notice of the nature thereof, the person sending such goods would be responsible for any damage which might be occasioned by the carriage of them without such extraordinary precautions as might be necessary to be used in their carriage.

When goods are weighed on their delivery to the carrier, and on their delivery by him there is found to be a deficiency in the weight thereof, he will be held responsible unless he can show that the loss has occurred in consequence of some cause beyond his control: and the burden of proof will be upon him. Ordinary goods do not usually lose weight in the course of a short journey.

Where any actual loss or injury is occasioned by the wrongful act of a third party while the goods are in the charge of carrier, the latter is responsible for the value of the goods or to make good the damage done, although he has a remedy by action against the person by whose interference the actual mischief was caused. He can sue in respect of the loss which he has sustained, and it would be no answer to such an action that the plaintiff was not the owner of the goods which had been injured by the misconduct of the defendant.

We do not purpose to go fully into the subject of the carriage of passengers; but it may be well to clear up a common misapprehension as to the responsibility of carriers of passengers for luggage belonging to and accompanying such passengers. If a man professes to carry passengers only, and does not provide any accommodation for their luggage, although he allows them to take small articles with them, he is not responsible for the loss of any articles so carried in or upon his vehicle. A common illustration of this is the case of an omnibus proprietor. But when, as in the case of a journey by railway, the passenger is subject to regulations as to the quantity of luggage which he may take without charge, and is charged for any excess, then the carrier will be held

responsible for all goods of the passenger accepted by him for conveyance with the passenger, whether anything beyond the fare is charged or not: with this exception—if the passenger takes charge of his own luggage and it is lost during the journey, the carrier is not responsible. It would not be fair to expect a carrier to be held liable for any goods which had not been delivered into the hands of his servants for safe custody.

The declaration as to the value need not be made by the consignor; it will be sufficient if it be made by any person duly authorised on his behalf, even though such person should not be one of his servants, nor a person expressly authorised to make such declaration. Thus, where a person applied to a friend to call for and forward some valuable goods within the statute, and the friend signed a declaration of value and paid the extra charge, the carrier was held responsible, and the declaration was decided to be sufficient on the principle that an authority to do a certain act includes authority to do all that is necessary in order to do that act effectually; and further, that the carrier having accepted the responsibility, and the extra payment in respect thereof, could not be allowed afterwards to dispute his liability.

If the carrier does not have his extra charges posted up in his office, or if he neglects to take the amount thereof after the value of a parcel has been duly declared, he will be held to have accepted the parcel subject to his common law liability, as if the Act of Parliament had not been passed.

In case of theft by the carrier's servants or any of them, the carrier will be held responsible as if the Act had not been passed; and the same rule applies to all special contracts; when the parties choose to define the terms on which the goods are to be carried, those terms will have to be observed.

If goods should be damaged in consequence of having been insecurely packed, the consignor, and not the carrier, will be held responsible. Every man must be answerable for his own deficiencies. But if any defect should become visible while the goods are in the hands of the carrier, he must do his best to make good the defect, so that he may be able to deliver the goods in a sound state and free from any injury while in his care. He must not neglect any precautions which may be in his power to ensure the safety of the articles sent by him, although he would not be responsible for any internal defect in packing which could not be discovered by inspection of the outside of the parcel.

Railway companies have used much ingenuity in order to evade responsibility, but, upon the whole, the battle between them and their employers may be described as drawn; sometimes one side gains an advantage and sometimes the other. The special clauses in the Acts of Parliament obtained by various companies need not be examined here, or we should overrun the space allotted to us. The principle of the Railway Traffic Act is substantially the same as that of the Carriers Act, which we have already explained. A case of an attempt to evade liability for the safety of a passenger's luggage may be briefly noticed. A railway company, by their regulations, required their passengers to see their luggage marked with the company's labels, and stated that they would not be responsible for any luggage which was not so marked. A passenger required a parcel of wearing apparel, wrapped in a shawl, to be labelled, but the porter on duty refused, on the ground that it was not usual to label shawls, and that doing so would be contrary to the rules laid down for his guidance. The parcel was therefore placed in the guard's van without any label and lost. On the passenger bringing an action against the company for the value of the articles so lost, he was held entitled to recover, on the ground that the company had no right to make regulations which would have the effect of divesting them of their re-

sponsibility for the safe carriage of the luggage of passenger when entrusted to their care.

Even when goods are accepted for carriage subject to special contract as to certain sources of possible loss, as when the carrier shall not be responsible for leakage or breakage, if such leakage or breakage be occasioned by the negligence or misconduct of the carrier or his servants, he will be liable to make good the damage or loss, notwithstanding the special contract; for a man cannot be allowed to shield himself by contract against the consequences of his own wrongful acts.

Railway companies are not allowed to impose unreasonable conditions upon their customers, even by means of special contracts, and many special contracts have been decided void on this ground. On the other hand, the condition must be clearly unreasonable, or the contract will be upheld. In all cases of special contract for the carriage of goods at a reduced rate, in consideration of lower charges being accepted by the company, a memorandum must be signed by the consignor or some person on his behalf. In a case which was decided last year by the House of Lords (the supreme tribunal in this country), it was held that where a person availed himself of the option of sending his goods at the ordinary rate on the usual terms as to the risk of the company, or of paying a lower rate and taking the risk himself, it was decided that the option was not unreasonable; but when he lost his goods in consequence of unavoidable delay, without any negligence or other fault on the part of the company, he must bear his own loss as he had agreed to do. An attempt has been made to stretch this decision too far, by representing as establishing the proposition that under such a contract a company would not be responsible in any event; but this is a mistake. If they could have avoided the delay they would have been responsible for the consequences of their own negligence, as already explained.

A railway company is bound to provide reasonable facilities for the carriage of goods, &c. Having been granted special powers which have enabled them in many instances to obtain a monopoly of the carrying trade between certain districts, they must accommodate the public properly, or, in default of an application may be made to the Railway Commissioners, also may be done in case of any undue favouritism as between rival tradesmen, &c.

A carrier ought always to be informed of the value of any money or other articles entrusted to his care which are all out of the ordinary line. Thus, where a man hid 100 lb. in an old nail bag which apparently only contained some hay, and sent the same by a common carrier who lost it, it was held that the carrier was not responsible, as he was ignorant of the need for special care of the bag. Hence it will be seen that the duty of the carrier is balanced by a correlative duty on the part of the consignor; and we shall presently show how the responsibility of a common carrier may be further limited. In this, as in all other cases of negligence, an action for damages may be defended on the ground that there had been contributory negligence on the part of the plaintiff. And this is clearly just: if a man by his own negligence contributes to his loss, he must bear the loss, even though there may also have been negligence on the other side; otherwise there would be a breach of the universal rule that no man can take advantage of his own wrong doing.

The general rule is that a carrier has a lien upon any goods carried by him for the amount of his charges for the conveyance thereof. In case of refusal on the part of the consignee to pay the carriage, the carrier may detain the goods for a reasonable time, in order to give the consignee an opportunity of changing his mind and accepting the goods subject to the payment of carriage. But if the consignee

persistently refuses to pay, the carrier will hold the goods at the disposal of the consignor, to whom he is entitled to look for the payment of his hire. Even though part of the goods may be delivered, it does not follow that the carrier has abandoned his lien so long as he holds sufficient goods to cover the amount due to him. And the right of lien is not lost by reason of the goods belonging to some person other than the consignor. The carrier still has the ordinary remedy in respect of his charges for carrying the goods.

This right of lien, however, is limited to the amount due in respect of the parcel of goods which have been so carried, and does not extend to a general balance due from the consignor or consignee to the carrier, unless such right may have been conferred by a special contract between them. But a mere promise on the part of the consignor or consignee that a certain parcel of goods may be retained as a security for the payment of a then existing debt would be void as having been given without any legal consideration, and could not be enforced.

The charges of a common carrier, where not limited by statute, must be fair and reasonable. In the case of a railway company, the maximum charges are limited by the Act of Parliament authorising the construction of the railway; and the same applies to canals and other means of transit which have been provided by the sanction of Parliament. The legislature, in giving exceptional powers for the accommodation of the public, take care to protect the public against any excessive charges by the promoters. In one respect, the law respecting the carriage of goods resembles that which regulates the proceedings of the cab-drivers: if a bargain be made to carry goods for less than the ordinary charge (even though the clerk making such agreement has made a mistake) the carrier is bound by that agreement; but it by no means follows that an agreement to pay more than the proper charge would be upheld.

It is, however, essential that a common carrier should make all his customers equal in respect of charges for his ordinary services where the goods conveyed are of the same class and are carried the same distance, or to and from the same places. There is an apparent anomaly in the case of railway companies which sometimes charge a higher sum for taking goods to a nearer place than they require for conveying similar goods to a more distant station. This arises where there is competition in the service to the more distant station, but none to the intermediate one. And the inhabitants of the latter place have no remedy; for the charges which they are called upon to pay are always less than the maximum which the company are authorised to charge, and there is no minimum limited by the Act.

The position of a carrier differs in several respects from that of a warehouseman; and though we have not any intention at present of considering the legal position of warehousemen, we must explain when and how the carrier may be merged in that character. So long as the carrier holds the goods for the purpose of discharging his duty as carrier, he retains all the rights and privileges of that position; he may have carried the goods to the town for which they were designed, and only be holding them until it is convenient to deliver them. But if the consignee arranges that, instead of being delivered immediately, the goods are to remain in the warehouse of the carrier, the transit is at an end; the carrier has discharged his duty in that capacity, and has become the agent of and warehouseman for the consignee. This distinction is often important for the consignor; for when the goods have come into the possession of the consignee's agent, the right of stoppage *in transitu* is lost.

This right arises whenever a purchaser becomes insolvent before the actual delivery of the goods to him or his agent.

Even if the goods have been sold upon the ordinary credit terms, the vendor may stop the delivery of the goods by notice to the carrier so long as they remain in the hands of the latter in that capacity. Therefore it is often important to ascertain when the carrier becomes merged in the warehouseman.

In treating of the duties of carriers, we have necessarily, to some extent, dealt also with their responsibilities; but a little further explanation of the latter is necessary. At common law, a carrier was allowed to charge more for the carriage of valuable articles in a small compass than for ordinary goods of the same bulk and weight. But his responsibility was enlarged in proportion thereto. If he undertook to carry a bag of gold, and accepted an increased rate of payment in consideration of its value, it necessarily followed that he could be held responsible for the full value of the gold which he was employed to carry. It then became usual for carriers to have notices posted in their offices that they would not be responsible for the value of parcels lost by them unless they had previous notice of such value, and were paid an increased rate of remuneration for carrying the same. The difficulties which arose in respect of these notices led to subsequent legislation on the subject, the Carriers Act having been passed in 1830 for the purpose of limiting and defining the responsibility of common carriers in respect of parcels carried by them of the value of more than 10*l*.

By this statute, common carriers by land are exempted from any liability in respect of the loss of, or injury to, gold or silver, or several other valuable articles specified therein, contained in any parcel or package which shall have been delivered, either to be carried for hire or to accompany the person of any passenger in any public conveyance, where the value thereof shall exceed the sum of 10*l*., unless at the time of such delivery the value and nature of such articles or property shall have been declared by the person sending or delivering the same, and an increased charge or an engagement to pay the same is accepted by the person receiving the parcel. There must be an express declaration made; and then, if the carrier has a notice of the increased rates to be paid posted up in his office, he may demand the increased rate, which is in the nature of an insurance premium for the safe delivery of the goods. It is obvious that the business of a carrier would be a very risky one without some such means of limiting his responsibility.

A common carrier may protect himself by special contract from the consequence of loss or damage by fire; and, as we have already said, may in various ways limit his liability by special contracts with his customers; but he cannot by a general notice evade the responsibilities appertaining to his business. Thus, the following notices by railway companies and other common carriers have been held to be void. A public notice that all merchandise received by them to be carried will be carried at the owners' risk; another, that all luggage delivered to them to be carried with passengers will be carried at the risk of the owner thereof; and a third, that the carrier will not be responsible for any goods or passengers' luggage delivered to him to be carried in case the same should be lost or damaged during the transit. In every such case, the consignor or passenger may object to such terms, and insist upon his goods being carried subject to the ordinary liability of the carrier in respect thereof.

FOR GOOD BOLD LABELS for stock bottles the *Journ. de Ph. d'Als.-Lorr.* recommends a paint made from 10 parts of liquid silicate of soda (soluble glass) and 1 part of common oxide of zinc. Three or four layers of this paint to form the white ground, the letters to be marked on with coal-tar diluted with a little turpentine.

THE WORK OF PASTEUR.

THE investigations and discoveries of Louis Pasteur are recognised in scientific, medical, and industrial circles, not only as of the highest immediate interest, but also as being probably passages leading to a knowledge of life and its conditions, such as we have hitherto scarcely dreamed of. A book has been written by M. Valéry Radot, the son-in-law and constant companion of M. Pasteur, the intention of which is to give a popular account of the labours in which this eminent Frenchman has been engaged, and the triumphs he has achieved. We are glad to observe that it is by the particular wish of M. Pasteur himself that the work is translated into English. The English version, which is due to the skill of Lady Claud Hamilton, is published by Messrs. Longmans, and is made more valuable by an introduction, analytical and critical, written by Professor Tyndall.

A curious difficulty was met with at the outset of the task of turning the book into English. The French title, "M. Pasteur, Histoire d'un Savant par un Ignorant," which is at the same time modest, explanatory, and effective, was not susceptible of being rendered into our language both elegantly and correctly. This is to be regretted, because it must be stated that the sub-title, "Life and Labours," is somewhat misleading. We find almost nothing concerning Pasteur's life; we should hardly know he had been married if it were not that the author of the book is described as his son-in-law. The marriage is indeed mentioned, but only in an anecdote illustrating his devotion to science. On the morning of the wedding it was necessary to go to his laboratory to remind of the event. But it is pleasant to find it hinted that Madame Pasteur has been treated with more respect than was Mademoiselle Laurent on that occasion. But, on the other hand, the value and significance of his discoveries is told in a manner which suggests the knowledge of the "savant" combined with the literary skill of the "ignorant."

Pasteur was born at Dôle in 1822. His father was an industrious tanner, whose great ambition seems to have been to make an educated man of his son. "If you could only one day become professor in the college of Artois," said the father frequently, "I should be the happiest man on earth." Chemistry was the first study that really attracted Louis Pasteur, and once having found his vocation he pursued the science with devotion, with passion. In 1843 he is met with in Paris attending the lectures of Balard and Dumas. He gave up all his spare time to experiments, and he must have toiled for some years on subjects which yielded him no prospect of personal fame, for it was not till he was twenty-five, four years later, that he seems to have made his first original investigation. This was in connection with the right and left-handed tartaric acid. Pasteur plunged deeply into the mysteries of symmetry and dyssymmetry; he saw "a grand horizon behind these researches in physics and molecular optics"; and he still laments, the author tells us that he has never had time to retrace his steps. This part of M. Pasteur's studies is the hardest of all to the careless reader. Dr. Tyndall seems to recognise that it may prove a *pons asinorum*, for he kindly remarks with a slight touch of sarcasm, "Should difficulty be encountered here at the threshold of this work, I would recommend the reader not to be daunted by it, or prevented by it from going further. He may comfort himself by the assurance that the conception of a dyssymmetric molecule is not a very precise one even in the mind of M. Pasteur."

These studies led Pasteur directly, but accidentally, to the work of his life. A German chemical manufacturer had observed that the impure tartrate of lime, if contaminated with organic matter and permitted to remain under water in summer, will ferment and yield various products. Tartrates were Pasteur's perquisites at the time, and he, therefore, investigated the circumstance. He found the turbidity was due to multiplication of a microscopic organism which found in the liquid its proper aliment. He recognised in this organism a living ferment. He found it had the power of selecting its food. He found that it would take the right-handed tartrate from the solution and avoid the other; and, as Tyndall says, he "closed with the conception that ferments are in all cases living things, and that the substances formerly

regarded as ferments are in reality the food of the ferment." His theory was propounded; he devoted some years to establishment, before which he had to overthrow the almost overpowering influence of Liebig, who treated the notion "animalculæ" as producers of fermentation with contempt.

The first practical application of his discoveries was made in regard to the manufacture of vinegar from wine. The generally received theory was that of Liebig, that the actual fermentation was caused by the albumenoid matter in the wine. Pasteur asserted and proved that the active agent was the "flower of vinegar," the "mycoderma aceti," which in contact with air abstracted oxygen, and fixed it on the alcohol of the wine, converting it into acetic acid. By the method of sowing the mycoderma aceti in the vats, the time occupied in the conversion of wine into vinegar was reduced from 4 or 5 months to 8 or 9 days.

The diseases of wines next occupied Pasteur's attention. After discovering the various fungi to which they were respectively due, he proposed to prevent any danger from them by simply heating the bottles when they were well corked for a single minute, to 60° C. (140° F.). There was no doubt about the effectiveness of this method, but there remained prejudice among wine dealers against the heated wine. Pasteur invited a committee of professional tasters to experiment with heated and non-heated wines. They still preferred the latter in point of flavour. Then he asked them to visit him again and to taste the samples without knowing which had been and which had not been subjected to heat. They consented, and the result completely satisfied even themselves that only prejudice had influenced them previously in their preference.

Just at this time (about 1865) there was great distress in the South of France, respecting the silkworm disease, which had been, in increasing degree, a national calamity for the past fifteen years. The reduction in the silk production was reckoned as causing a national loss of four million pounds sterling per annum. The Government had appointed a commission, to which M. Dumas was chief scientific adviser. At his earnest request, M. Pasteur undertook, though with extreme reluctance, the investigation of the terrible epidemic. Being talking himself to Alais, he soon learned the extent of the plague. Patiently and laboriously he worked for several years at his new problem, though in the first hours of his acquaintance with it he had gone straight to the cause of the trouble. He found minute corpuscles in the blood of the moths were the cause. He found that the germs of these were laid in the moth's eggs, and he concluded that if means could be found for separating infected from healthy eggs, the plague would be stayed. His wife and daughter became silkworm rearsers, while he studied microscopically the developments of the disease. The story of this long investigation is one of the most interesting episodes of Pasteur's life. We must content ourselves by stating that he ultimately triumphed completely. He showed how to collect the eggs of each moth separately; then he showed how to ascertain if the moth was infected; this ascertained the rest is simple. The eggs from bad moths are destroyed, and the healthy ones alone preserved. The success of Pasteur's labour was enormous. The Emperor made him a senator, but the strain on his nerves had been too much for him, and in 1868 he was stricken with paralysis, which brought him nearly to the grave. Scarcely had he recovered some portion of his working strength when the war of 1870 and his country's disasters broke down his sensitive spirit. "The bulletins of defeat, which succeeded each other with mournful monotony, threw him into deep despair. He lived in his little house at Artois as one completely vanquished. Those who went into his room found him often bathed in tears. On January 18, 1871, he wrote to the Dean of the Academy of Medicine at the University of Bonn a letter, in which all his grief and all his pride as a Frenchman were displayed, requesting him to withdraw the diploma of German doctor which the Faculty of Medicine of the University had conferred upon him in 1863."

But vigour again returned to him, and the past ten years of his life have produced his most splendid services. After studying and exploring the diseases to which beer is liable, Pasteur was led into more directly medical studies. He aimed to trace the cause of the fatal disease which had decimated the flocks of France and other countries, known there as "charbon," in England as "splenic fever." It was in

studying this disease that Pasteur worked out his scheme of securing safety by inoculation. He traced the disease to a microscopic bacillus, which he isolated. He proved its virulence. He thought long over Jenner's discovery of a prophylactic means of protecting animals from the danger of virulent diseases, and he applied this principle by means of his attenuated cultivations of the virus. In 1881 he gave a public demonstration of the truth of his theory by an experiment on 60 sheep. Of these 10 were not treated at all; 25 were vaccinated by Pasteur's proposed method, and a few days later these 25 and the remaining 25 were inoculated with the virus of splenic fever. A corresponding experiment was made on ten cows. All were kept together. On the third day after the last inoculation a large company met at the farm at Melun. Twenty-one of the inoculated sheep were already dead, the rest died a few hours later; those which had been previously vaccinated were all in full health. A similar experience occurred with the other animals. Inoculation has been widely practised since, and mortality from splenic fever has been reduced to one-tenth what it was before Pasteur experimented.

These are some of the labours in which this great man has engaged. The long years of patient experiment in the early period of his life explain the comparative rapidity with which he has been able to arrive at his results in his latter years. But the services he has rendered to his country and to humanity are as yet truly so inestimable, that Professor Huxley's observation is in no sense hyperbolic, that "Pasteur's discoveries suffice of themselves to cover the war indemnity of five milliards of francs paid by France to Germany."

SWEET SPIRITS OF NITRE.

(From *The Lancet*, March 7, 1885.)

THE composition of sweet spirits of nitre and kindred preparations is a subject which seems destined to disturb the quantity of dispensers and pharmaceutical chemists. It is stated that the Council of the Pharmaceutical Society have recently thought it necessary to convey their views on the matter to the authorities of the Inland Revenue at Somerset House. The exact nature of their communication is not known, but it is understood that the Council maintain that there is no positive evidence that the medicinal value of sweet spirits of nitre depends on the presence of nitrous ether, and that any specimen which is of proper specific gravity, and gives indications of containing *some* nitrous ether, may be regarded as having been prepared according to the directions of the British Pharmacopœia. With respect to the sweet spirits of nitre of the old London Pharmacopœia, they are of opinion that the proportion of nitrous ether which it contains often amounts to little more than a trace, and that the only tests necessary to show that such an article may be considered to be of good quality are those of odour, flavour, and specific gravity. They further state that the tests laid down in the British Pharmacopœia, and other tests devised with a similar object, cannot be supposed to be applicable to preparations sold for domestic use. A common argument used by druggists is, that an article supplied by a large manufacturer chiefly to medical men has a density of .887, and that although it contains little or no ethyl nitrite, few complaints are made. These views, we must admit, have taken us somewhat by surprise. It would seem that the authorities of the Pharmaceutical Society are of opinion that the absence of the chief constituent from a preparation is a matter of very little importance if only the omission is not detected. This is a code of morality to which we are unaccustomed, and we are decidedly of opinion that no pharmacist or body of pharmacists has any right to change the character of a well-known preparation, or to supply an article essentially different from that which the medical man supposes his patients are taking. It is a subject of considerable importance, and one by no means which should be overlooked.

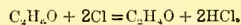
[We reprint the above, not on account of its intrinsic importance, but to show how chemists are treated by at least one of the self-constituted organs of medical opinion. It is possible that the statements made in this paragraph origi-

nated in the representations made by the President of the Pharmaceutical Society to the Local Government Board respecting the official publication of misleading statements concerning the adulteration of drugs; but whatever the foundation, it is certain that no care has been taken by the editor of the *Lancet* to give either an accurate or a fair report. Pharmacists and medical men have interested themselves in regard to the composition and the therapeutic value of spirits of nitre, but it is only a silly joke to say that "the authorities of the Pharmaceutical Society are of opinion that the absence of the chief constituent from a preparation is a matter of very little importance if only the omission is not detected."]

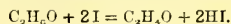
A DRUGGIST'S SHOW-BOTTLE.

A WEAK solution of iodine and iodide of potassium in water gives a pretty crimson colour, and is in much request on this account by chemists for their show-bottles. A very good strength is obtained by using $\frac{1}{4}$ oz. each of iodine and iodide for a 3-gallon bottle, and to the solution may be added a small proportion, say 1 per cent., of hydrochloric acid. Methylated spirit must not be used to dissolve the haloids, or unexpected results will follow, the probability being that the entire liquid in the show-bottle would be colourless in a few days if in summer, or if in winter in a few weeks. This was many years ago the experience of the writer, who had on one occasion used a few ounces of methylated spirit to dissolve the iodine and iodide before adding the water, and, as the circumstance has recently been recalled to memory, it may probably be of interest to refer to it somewhat in detail.

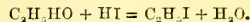
The reactions involved in the change of colour, or rather in the loss of colour, are complicated, and would, if thoroughly understood, form an interesting chapter in organic chemistry. It was at first thought that the ultimate product of the decomposition was ethylic iodide, which might be obtained in the following manner. It is well known that chlorine and ethylic alcohol react to produce aldehyde and hydrochloric acid, one atom of hydrogen being simply abstracted from the alcohol by the haloid to form the acid, thus:—



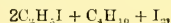
It is not known whether iodine possesses this power, but in the absence of evidence to the contrary it may be assumed as probable, and in that case the following would occur:—



Hydriodic acid and alcohol when brought into contact undergo decomposition, with the formation of ethylic iodide and water, this being brought about by an atom of iodine and a molecule of hydroxyl, and changing places, thus:—



Ethylic iodide is a colourless body, but under the influence of sunlight it is decomposed to diethyl and iodic, thus:—



and the free iodine imparts a brown colour to the liquid.

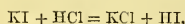
As it happened, however, that the liquid remained perfectly clear even in the direct rays of the summer sun, this operation was rendered doubtful, and, with the view of settling the point, a series of solutions were prepared and exposed to the light.

These were composed as follows:—

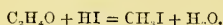
1. Iodine, and iodide of potash and water.
2. Iodine, and iodide of potash and water, with 1 per cent. hydrochloric acid.
3. Iodine, and iodide of potash and water, with 2 per cent. methylated spirit.
4. Iodine, and iodide of potash and water, with 2 per cent. rectified spirit.
5. Iodine, and iodide of potash and water, with 2 per cent. methylated spirit and 1 per cent. acid.
6. Iodine, and iodide of potash and water, with 2 per cent. rectified spirit and 1 per cent. acid.
7. Iodine and methylated spirit.
8. Iodine and rectified spirit.

Within three weeks, during which time the sun was seen on two days only, solution No. 5 was almost colourless, No. 7 was in much the same condition, and No. 3 had begun to change, while all the others were unaltered in appearance. Singularly enough, these three solutions are those in which methylated spirit was used, and it therefore follows that we must look to the methyl rather than the ethyl for an explanation of the reaction.

This source is all the more probable since it is well known that hydriodic acid acts energetically on methylic alcohol, provided the conditions are favourable. If we take No. 5 solution, in which the change took place most rapidly, we have still further confirmation of this hypothesis, as in this particular case the hydriodic acid is ready formed without waiting for the iodine to act on the spirit at all. The iodide of potash and the hydrochloric acid suffer double decomposition, thus:—



and the hydriodic acid thus formed acting on the methyl produces methylic iodide, thus:—



This explanation does not, it is true, account for the disappearance of the free iodine, but it is extremely probable that the rearrangement that takes place is hastened by catalytic action, so that when once the reaction has been started, it proceeds until all the iodine is ultimately transformed into iodide.

That the methyl has to do with the decolorisation rather than the ethyl is evident from the fact that the plain solution of iodine in methylated spirit lost its colour, while the solution in rectified spirit was quite unchanged. It may happen, however, that impurities in the methylated spirit may have something to do with the loss of colour, but the probability is that any foreign body would be present in too small a proportion to affect the result; and the likelihood, therefore, is that the change is due to the action of the methyl on the iodine.



TRANSFER OF BUSINESSES: A QUESTION OF COMMISSION.

HINE GILBERT V. WATERHOUSE.

THIS was a remitted action from the High Court, and was tried last month in the Ramsgate County Court, before Judge Selge and a jury of five. Our report is taken from the *Kent Coast Times*.

Plaintiff, George Hine Gilbert, carrying on business as a chemists' transfer agent at 17 Hart Street, Bloomsbury, sought to recover from defendant, Mr. Aquilla Waterhouse, a chemist, formerly of Dewsbury and now in business at 104 High Street, Ramsgate, the sum of 22*l.* 10*s.*, being 5 per cent. commission on the sum of 450*l.*, for which, it was alleged, he had rendered himself liable under a special contract.—Mr. Torr was counsel for the plaintiff, and Mr. G. W. Churchley represented the defendant.—The case for plaintiff was that in October last he received a letter from defendant inquiring if he knew of a good dispensing and general business, returning 1,000*l.* a year, for sale. Plaintiff replied to the letter on October 14, informing defendant that Mr. Henry Baker, of Ramsgate, had such a business for disposal for 450*l.*, part of which could remain. At the end of this letter there was a postscript to the effect that an order to view was enclosed. On this order to view there was a condition, stipulating that the holder, if he decided to purchase, should pay the usual deposit to Hine Gilbert & Co., who would then make all necessary investigations; and,

further, that, should the purchase be concluded without the knowledge, the purchaser would become liable for the commission. A copy of the writing on the order to view alleged to have been sent to defendant was produced in the plaintiff's letter-book, but it did not follow the letter and was not indexed. Copies of letters sent by defendant to Mr. Baker, and the latter's reply thereto, were put in; also further letter from plaintiff to defendant asking for an interview before he (Mr. Waterhouse) proceeded to Ramsgate. On October 20 defendant called at plaintiff's office, and at the conclusion of the interview which took place, it was alleged in evidence by Mr. Gilbert and his clerk, Mr. Thurgood, that Waterhouse produced papers from his breast pocket, on the top of which was their order to view, and that he, alluding to it, asked whether it would be sufficient introduction. On November 19 plaintiff wrote, "Kindly let us know your decision as to purchase or otherwise of Mr. Baker's business." Defendant replied on the 20th, stating that he was sorry to say that he had purchased Mr. Baker's business on October 22, and that afterwards he found there was a bill of sale on the stock-in-trade and furniture for 110*l.* He added that there was a warrant out for Mr. Baker's arrest, and concluded by expressing surprise at plaintiff not having informed him of the bill of sale. Plaintiff immediately wrote back repudiating any knowledge of the bill of sale; informing defendant he would get no sympathy from them; that as he had helped Baker in avoiding payment he had become liable himself; handing him their account (assuming the purchase-money was 450*l.*), and requesting immediate payment.—Mr. Churchley, in cross-examining plaintiff, asked him what he had done for defendant to entitle him to this money?—Plaintiff: Helped him into a business. (Laughter.)—Mr. Torr pointed out that there was no claim for work done, and that he relied entirely on the contract.—Cross-examination continued: Plaintiff said defendant never wrote accepting his terms, and he was never informed that the commission was 5 per cent.—The case for the plaintiff was concluded with the evidence of Mr. Mongo Wills, chemist, of 2 Orange Street, Red Lion Square. He was present at the interview on October 20, and gave defendant some particulars as to Baker's business, having been to Ramsgate to see it for himself. He saw defendant take some papers from his pocket and handle them, but could not say what they were. Defendant asked at the same time, "Will this order do?" and Mr. Gilbert replied, "Ob, yes."—Mr. Churchley: Did defendant say, when handling the papers, "Will this be sufficient introduction?"—Witness: No, it was not that.

Mr. Churchley, for the defence, submitted that there was no case for him to answer, because it had not been proved that there was any acceptance of the contract. Besides, defendant would pledge his oath that he did not receive any order to view from plaintiff. He never pointed out the omission because an order to view from Gilbert was not necessary, Baker's business having been advertised for sale in the *Pharmaceutical Journal*. A man generally paid for services rendered, but what services had the plaintiff rendered defendant? Baker might have agreed to pay plaintiff commission, but Waterhouse did not, and it was monstrous to suppose a man could have liabilities thrust upon him because he wrote and made inquiries—perhaps about the rent of a house.—Defendant, in evidence, denied that there was an order to view enclosed with plaintiff's letter of October 14. He purchased the business of Baker on October 22. He had not the slightest idea he would be called upon by plaintiff to pay commission. At the interview with Mr. Gilbert on October 20 he might have pulled a time-table out of his pocket, but nothing else. He asked plaintiff what he wanted him for, and he replied that it was to inquire if he had sufficient money to buy with. He replied that he had if the business suited him.—Cross-examined, witness said he gave 400*l.* for the business. Did not recognise plaintiff as his agent, and was unaware that Baker would run away.—Re-examined: Had applied to several agents, and had an order to view (produced) for this very same business from Taylor & Co. He paid 250*l.* down since, and Baker had offered to forego 40*l.* if he would pay the bill of sale out (110*l.*).—Mr. Torr: Can you give me Mr. Baker's address?—No, sir; I want to find him.—(Laughter).—Mr. Ben Twyman (Twyman & Sons), Mr. John Marrable, and Mr. Richard George Chute, of Pimlico, were then called to give evidence as to the usual percentage charged in transfers of businesses.

they agreed that 5 per cent. was generally charged on the first 100%, and 2½ per cent. beyond that sum.—Mr. Torriving replied, his Honour directed the jury at considerable length, leaving them to consider whether the order to view was enclosed by plaintiff with his letter of October 14, and, so, what amount Mr. Gilbert was entitled to upon the sale of the business in question.—The jury then retired, and on their return the foreman stated that they had found a verdict for the defendant. They were of opinion that no contract had been entered into by the defendant, and that an order to view was not sent by plaintiff until after the purchase had been made.—Mr. Torr said he would like to apply for a new trial, on the ground that the verdict was against the weight of evidence.—His Honour: That must be an application to the High Court.—Mr. Torr: I thought that I had to apply to your Honour I should save time by doing so now.—His Honour: You may go the High Court with an intimation that the judge is quite satisfied with the verdict.—Mr. Torr: I am afraid that will somewhat handicap me.—His Honour: I do not think any court would undertake to reverse the verdict of the jury. The case has been tried upon its merits, and if it was a County Court action I should certainly not grant a new trial.

LOADING SYPHONS.

At the Clerkenwell County Court on February 6, before Judge Eddis, Messrs. Barrett & Elers, mineral-water manufacturers, of Vauxhall Road, sued the Chemists' Aërated Waters Association (Limited), of Gifford Street, N., for the delivery of six dozen syphon bottles bearing their name and trade-mark, valued at 7l. 10s. Mr. Rendall Moore appeared for the plaintiff, and Mr. Jones for the defendant.

The case arose from a letter received by plaintiffs from the secretary to the defendant company, stating that the latter had in their possession six dozen of plaintiffs' syphon-bottles, and asking them to exchange them for plain syphons or allow for them. The plaintiffs, however, stated that they loaned the syphons to their customers free, and they therefore claimed that these bottles were theirs, and must be returned to them unconditionally. For the defence it was stated that there was a clearing-house system in vogue for such bottles, so that each manufacturer got his own bottles back.

The Judge said that, as these bottles bore the name and trade-mark of the firm, anyone else using them would be guilty of fraud, and an injunction for infringement of trade-mark could be obtained. He imputed no fraud to the defendant company, and the best proof of their good faith was that they themselves had written to tell plaintiffs that they had their bottles in their possession. The clearing-house system might exist, but there must not be a price set upon a man getting his own goods. Messrs. Barrett had a perfect right to demand the bottles from the company.

SUICIDE.—On February 24 an inquest was held on the body of Mr. William Man Covell, chemist, 302 Mare Street, Hackney. On the previous Sunday afternoon he had been found unconscious on a couch with a measure-glass near him nearly empty and smelling strongly of prussic acid. Dr. Slimon, of Mare Street, was immediately called in, but before he arrived the man was dead. The evidence showed that he had no domestic or monetary troubles, but had recently given way to drink. On the Saturday night he was in a highly-excited state, and complained that he had had no sleep for five days and nights. The jury returned a verdict of suicide while in an unsound state of mind.

THE SUPPER OF THE PHARMACEUTICAL FOOTBALL AND CRICKET CLUBS took place at the Holborn Restaurant on Wednesday, the 11th inst. Professor Atfield was in the chair, and Mr. Michael Carteghe acted as vice-chairman. The guests numbered over fifty. Mr. Tupholme, the captain of the Football Club, stated that during the season out of eleven matches seven were gained. Mr. Pemberton replied for the Cricket Club. The toast, "The Pharmaceutical Society," was proposed by Mr. Coalter H. Ince, who showed the relation between the Football Club and the Society, and was replied to by Mr. Michael Carteghe, the vice-chairman. A number of songs were interspersed with the speeches.

BANKRUPTCIES AND LIQUIDATIONS.

GEORGE HULL, Druggist and Drysalter, Birmingham.

THIS case was reported last month. At the public examination, in reply to Mr. Sharp, the official receiver, the debtor said that he commenced business about forty years ago as a grocer and drysalter with a very small capital. In the course of time he accumulated a capital of nearly 10,000l. He had a son-in-law named William Winby, an engineer, on whose account he entered into heavy responsibilities. Winby went into business as an engineer, and he (the bankrupt) became responsible for 7,200l. on his account. He had paid off that amount with the exception of 3,000l., still owing to the bank which made the advances. On March 7, the official receiver approved a composition of 6s. in the pound secured, payable by three equal instalments at one, two, and four months, which had been accepted by the debtor.

GEORGE EDWARD INGER, 7 High Street, Nottingham, Chemist, Druggist, and Optician.

The following is the list of creditors:—

	£	s.	d.
Ross & Co., Belfast	17	11	7
Thompson, W. H., Birmingham	12	10	0
Murritt, Mrs., Derby	20	0	0
Valentine & Sons, Danlès	14	0	0
Fry, S., & Co., Kingston-on-Thames	33	17	6
Atkinson, J. J., Liverpool	75	5	10
Allen & Hanbury, London	19	14	7
Archer, A., London	23	4	4
Collett, Dodds & Co., London	11	3	2
Evans, Lescher & Webb, London	60	14	10
Harc, G., London	10	2	6
Harker, Stagg & Moss, London	19	18	0
Huon, A. E., London	68	11	11
Langton, Elden & Co., London	33	2	1
Maw, Son & Thompson, London	16	4	11
Pilcher & Son, London	25	18	1
Scholz, O., London	13	6	9
Spicer Bros., London	59	10	6
Thompson, Millard & Co., London	15	1	9
Bowker, Miss S., Nottingham	93	5	2
Inger, Miss A. E., Nottingham	120	0	0
Joint Stock Bank, Nottingham	200	0	0
Parker, W. H., Nottingham	75	0	0
Parsons, Son & Pierce, Nottingham	20	0	0
Truman, P. P., Nottingham	50	0	0
Keyzor, Ben & Co., Paris	46	12	0
Laverne, A., Paris	80	10	0
Bowker Dean, Wisbech	20	0	0
Creditors under 10l.	123	6	4

JOHN LITCHFIELD, Longton.

A PETITION has been filed in the Stoke-on-Trent and Longton Bankruptcy Court, by John Litchfield, of High Street and Uttoxeter Road, and carrying on business at 50 High Street, Longton, as a chemist, druggist, and seedsman. A meeting of the creditors was held at Stoke-on-Trent on February 24. The liabilities were 1,458l. 10s. 4d.; assets, 317l. 7s. 1d., and deficiency, 1,141l. 3s. 3d. The debtor, who attributed his failure to the pressure of creditors, made an offer of 5s. in the pound, which was declined. The following day the public examination was held before Mr. Keary (registrar) at Stoke-on-Trent. In reply to the official receiver, the bankrupt stated that he commenced business in partnership with his father in 1874, the assets being estimated to produce 1,000l. He had no money of his own, and he gave his father a promissory note for 500l., towards which he had paid 50l. a year and the interest. In 1879 his father retired, the debtor at that time owing 1,232l., on account of his having increased his share by adding private money to the partnership. No stock was taken when the partnership was dissolved, nor was any valuation made; he accepted his father's figures as correct. His turnover had amounted to 1,000l. a year, but it had fallen off latterly. He made a profit of 350l. the first year that his father retired; but the amount had diminished ever since. His stock would be worth about 500l., but he insured it for 1,000l., because he did not actually know its value. He did not find that he was in difficulties until he opened a second shop in December. His wife had a private income, but he did not know what amount it was.



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EDITORIAL NOTES.

PHARMACEUTICAL PROGRESS.

WE have no desire to put the question in a cynical spirit, but we may be permitted to consider for a moment what is the ideal condition of pharmaceutical development towards which the active promoters of our societies, eongresses, conferences, and associations are aiming? Perhaps it would not be a very inaccurate guess to assume that possibly but few of them have any fixed views as to ultimate objects, but that they are only obeying that law of life which makes movement a necessity. And yet we presume they would hardly like to believe that their activity is systematically purposeless. Immediately purposeless, of course it is not. They strive after a certain object vigorously; the object is probably desirable in itself; the striving is even more likely to be useful; but in these efforts they invariably use expressions about the progress, the elevation, the advancement of pharmacy, which suggest a vague sort of aspiration towards a higher condition which it would seem they have some hope of attaining either for themselves or for their successors.

Movement is the law of life; stagnation is associated with decay and death. We rejoice in the many evidences of life which present themselves in the pharmaceutical world,

though in many cases it may not be said that the expenditure of energy involved is economically justifiable. For instance, we have watched for twenty years past the publication of an International Pharmacopœia—a scheme which has had the benefit of the advice, the thought, the speeches, and the writing of the picked pharmacists of Europe and America. Committees have cogitated, reports have been drafted, and vast masses of correspondence have been issued, ostensibly to promote this useful but not tremendous project; and we are not yet within measurable distance of the moment of hatching. Indeed, it would be metaphorically correct to say that the egg has not yet been laid.

In this country, in Germany, in France, in America, and everywhere, in fact, we see an everlasting war being carried on in pharmaceutical and medical societies against the secret-medicine trade, or the "secret-medicine swindle," as its interest-foes are fond of designating it; but the secret-medicine trade or swindle proceeds on its course with giant strides as uninfluenced by the general indignation as was the Atlantic Ocean by Mrs. Partington's mop.

It is not necessary to multiply examples; the point is the wastefulness of associated labour. Not that the labour is wasted in every sense. Mrs. Partington failed to put the bean back, but she was all the better herself for the exercise; and perhaps, if the International Pharmacopœia never floats afloat there will have been sufficient benefit resulting from the assembling of themselves together to compensate the international pharmacists for their labours.

But what is the ultimate goal? When we have got an international pharmacopœia, a curriculum for our students, a position on the Pharmacopœia Committee, and the Minor Examination divided, what do we hope for as the result? Is it commercial benefit, social position, or some possible moral improvement in our lot? Is there any distinct intention of working for Government protection of pharmacy such as prevails in Germany? That would be a good solid object to set before us. But no one in this country seriously entertains any such anticipation; or, if any do, it may be mentioned that there is a growing desire in Germany for the abolition of the concession system, so that it would be difficult to show which party represented true progress.

The truth is, progress is not indicated by resolutions nor even by Acts of Parliament. It is assured by individual efforts, by individual energy, by individual integrity. These will secure commercial, social, and moral advancement now as they have done in the past, and pharmaceutical progress—that is, the progress of the pharmaceutical body—is contingent much more on an increased proportion of skilful and honourable members of that body than on any artificial regulations, no matter how cunningly devised, which the combined skill of our Council or Conference can elaborate.

DISPENSING AND RETAIL PRICES.

THE principal of one of our dispensing establishments had one day lately the experience of two hours' hard and constant prescription-dispensing. This somewhat unusual and uninterrupted flow of dispensing-work prompted him to calculate the result of his two hours' labours, and he found that the total receipts for the medicines prepared amounted to about eleven shillings. The prescriptions were of the usual kind, namely, pills and powders, from half a dozen upwards; mixtures, the majority small; a blister, an ointment, and one or two sundries, more or less troublesome to dispense. The revelation that a working day of twelve hours of heavy harassing mental and bodily labour would only yield at this rate a return in revenue (not profit, let it

be noted) of about three guineas was rather startling, as showing that higher pharmacy could not, after all, be the paying concern that many suppose it to be. No doubt it may be said that the prescriptions in this instance must have been exceptionally insignificant to have yielded such paltry returns, but we have no reason for supposing this to be the case. Some prescriptions do probably pay better than others, and a run of such might increase the total amount in a given time; but we believe it is a fact now well recognised that physicians' prescriptions are not so remunerative as they were some years ago, owing to the very general concentration of remedies, and owing also to the smaller quantities more frequently prescribed in the present day. Be this as it may, we mention the above circumstance for the purpose of showing, first, the possibility that dispensing of itself, and without the various other accessories of a modern pharmacy, may not prove remunerative, if it be even made to yield a bare subsistence; and, second, that it is, consequently, a suicidal policy to permit any department to slip from the grasp of pharmacists which they presently possess, or to neglect the cultivation of any other that may legitimately lie within their reach.

The question of patent medicines has been a vexed one for a considerable time, but, in the light of the facts just stated, is there not some reason for reconsidering the position which they presently occupy in relation to pharmacy? Notwithstanding the aversion which many have to them, it cannot be denied that they are a legitimate offspring of pharmacy, and belong by right to it more than to any other department of industry; nor can it be denied, further, that very much of the present aversion to them is owing more to the general cutting of prices than to any principle involved in the keeping or sale of them. Now as regards prices, what are the facts of the case? Patent medicines require no skill on the part of the vendor in preparing them, or time in dispensing them, and, unlike prescriptions, there is no risk involved as regards errors, with all their accompanying penalties direct and indirect. They merely require to be wrapped up and handed over, and for this act a profit is expected greater than that derived from a vast majority of dispensing transactions requiring time, care, skill, anxiety, risk. There can be no comparison between the two transactions, looked at from any point, and yet they are brought to the same standard as regards the profit they are made to yield. Of course the argument may be made to cut both ways, and what has been said may be held to prove that in many cases dispensing charges are too low, and that they might be reasonably increased. We are willing to allow that this may be so in many cases, but the argument is written in face of the threatened, and, as a matter of fact, in many instances, all but accomplished, extinction of the retail patent-medicine trade; and in such circumstances we think it would be well to ask if one-third profit is not too much to demand or expect for the mere commercial transaction of handing over any article. A judicious decrease in the profits in this direction, and a still more judicious increase of charge in the case of troublesome and petty dispensing would, to some extent, counterbalance matters, and relieve a difficulty at present much felt, and which is every day threatening to become more serious.

Again, if stores are not causing so much talk, or producing so many letters of declamation at present as they did some time ago, we fear that it is not owing to the evil being less or likely to grow less, neither is it owing to any united energetic plan of action being agreed upon to meet and overcome the evil. The increasing silence is more that of despair or indifference begotten of the adage that "What cannot be cured must be endured." But can this evil not be

cured? On what principle, for example, do stores operate? On the principle of encouraging small sales and multiplying customers, or of giving one pennyworth for three farthings? Certainly not, for they at least have learned that under no circumstances would the policy pay of selling cheap in the small. They consequently hold out the inducement of cheapness in quantity, a policy which chemists have all along too much ignored. For thirty years we have heard the cry, "Keep up the prices; medicines are like nothing else, for cheapness will not increase the consumption." And so "Keep up the prices" has become almost a watchword, until prices have come to be regulated, not so much by the nature of the substance sold or the quantity sold as by a formulated relation of profit to the shilling. Again, we ask, is it wise in the face of an energetic and ever-increasing opposition to uphold such a fiction or to fly in the face of all sound commercial principles? There is no monopoly, and there never will be a monopoly in the more strictly commercial transactions of chemists, and the prices can, therefore, never be kept up by any combination, however complete, so long as trade is free to all and sundry outside of the combination. Let this be recognised and acted upon; let there be a readjustment of prices, particularly in quantity and of substances more commonly used; let ordinary commercial principles and common sense discriminate between transactions large and small, with risk and without risk, of substances seldom used and largely used, and we venture to predict a speedy termination of very much of the opposition and general cutting of prices at present experienced by chemists.

THE SALE OF MEDICINAL WINES

THE Board of Inland Revenue have lately investigated some of the various preparations sold as medicines, with or without a patent-medicine stamp attached. We understand that they have intimated to the wholesale houses that a preparation known as Coleman's Meat and Malt Wine may only be sold, wholesale or retail, by persons holding a proper wine licence.

We asked the Board whether any specific rule could be given respecting the legality of selling such preparations by chemists, and in reply to this inquiry we are informed (5,544-85 J.) that the Commissioners of Inland Revenue "are in the habit of allowing vinous and spirituous compounds to be sold with only a Patent Medicine Label, if prepared in accordance with some formula in the British Pharmacopœia. If not so prepared, or if not medicated, such compounds, whether labelled or not, cannot be sold either wholesale or retail by a person who does not hold a proper Excise licence." The "specific rule" is not very clearly laid down, but we take it that the Board do not wish to interfere with the sale of *bonâ-fide* medicines, but that preparations which partake rather of the nature of beverages than of medicines cannot be sold, except with a wine licence. How much medicine would make a preparation "medicated" in the view of the Board is probably a question which it would be difficult to define exactly.

PROOF OF AGENCY.

THE pharmaceutical authorities at Melbourne, while endeavouring to enforce their legal rights in the public interest, have been met by a legal quibble which seems ingenious and novel, notwithstanding its obvious strategic character. The Society prosecuted a Chinaman for illegal sale of opium. Proof was given of the sale in the Chinaman's shop, and it does not seem that either the sale or the ownership of the shop was disputed. But it was contended, as we understand,

that on the prosecution lay the burden of proving that the assistant actually making the sale was the *bonâ-fide* agent of the defendant. The prosecutors responded, in harmony with common sense, that when they found A serving in B's shop and doing B's work, the presumption was sufficiently reasonable that he was B's agent, at all events unless B could offer fair rebutting evidence. But the temptation of giving the legal subtlety precedence over the common sense view seen to have been too strong for the magisterial mind, and decision was consequently given in favour of the defendant's contention, two guineas costs being granted against the Pharmaceutical Society. At the date of our last letter from Melbourne appeal had been made to the Supreme Court on behalf of the Pharmaceutical Society, and the result will be awaited with interest. Without knowing how far the law would permit it, it appears to us that the question of agency in such a case as this is not a legal point at all; if the case were tried before a jury the question of A's relationship to B would surely be submitted to the jury, and when a magistrate combines the duties of judge and jury he ought to decide what are fair jury questions from a reasonable and not from a casuistic point of view.

REGULATING THE PRICES OF PATENT MEDICINES.

FAILURE OF THE AMERICAN EXPERIMENT.

THE Campion plan, a scheme which was elaborated with the intention of checking the cutting of prices of proprietary medicines, and which has been in operation in many of the chief cities of the United States for the past six months, has now broken down, and has left the retailer in a worse condition than before the experiment was attempted. The system was started in New York amid a good deal of enthusiasm. The chief patent-medicine proprietors gave their signatures, as also did most of the wholesale distributors. Each pledged himself, subject to certain notice of discontinuance, to supply to no one whose name should be put on a "cut-off list." A committee was appointed to draw up and add to that *index expurgatorius*, and it was expected that in a little time the "scalpers" would run their stocks dry, and that only legitimate vendors—that is, those who sold at full prices—would be able to supply the public demand. Evidence of any firm supplying any one whose name was on the "cut-off list" ensured for the accused the doubtful fame of companionship in that record, and the proprietors adhering to that plan were thereupon bound to stop the supplies to the newly-added name. At first, victory was shouted in anticipation. All parties contraluted each other, and there was great rejoicing. But the cutting firms made the most of the business. They circulated millions of handbills to prove to the public how the jealous traders were trying to suppress their beneficent actions. And, somehow or other, no one seems to know how, they never got short of stock. But they closed their accounts with the houses that did refuse to supply them, and gave big business to firms who kept clear of the Campion plan. Then discontent arose; philosophers stepped in and explained how impossible it was to dam up the natural currents of trade, and one or two houses broke away. The Committee considered the time ripe to show vigour, and, therefore, on what was said to be insufficient evidence, they put the big firm of McKesson & Robbins on the "cut-off list." Then the owners of St. Jacob's Oil withdrew, and this and other circumstances brought the proprietors together in consultation, and on February 11, after a meeting at Philadelphia, they resolved in a body to abandon the system. The result is not encouraging to the ingenious advocates of similar schemes in this country.

CUTTING BUSINESS—RESULT:

At the Stockton Bankruptcy Court, Mr. G. R. Toogood has been narrating to the Official Receiver his experience of "cutting" on a large scale. Mr. Toogood was the first in the district to cut up the patent-medicine trade, and his industry is notable. He began business, in 1870, with no capital. In 1876 he took stock, and found himself about 100*l*. to be good, but the record of the stock-taking had got delayed. Affairs were going on too slowly, however, it would seem, as at that date Mr. Toogood enlarged his premises and "attempted to copy the Civil Service Stores." He did a very large trade, the turnover averaging for the eight years 25,000*l*. a year. The statement of affairs shows that, after losses and personal expenses, Mr. Toogood spent 100*l*. 17*s*. 8*d*. for every 100*l*. that he took throughout the eight years when he "copied the Civil Service Stores." He attributes his failure to want of capital, a theory which is not more sensible than one. Had he had a fair supply of capital to start with he would perhaps have been more careful of it. The customers who bought 100*l*. 17*s*. 8*d*. worth of stock for 100*l*. from him got the benefit, but neither Mr. Toogood nor his creditors get any thanks for their ability now that the inevitable result of a disregard of the laws of arithmetic has come to pass.

TRANSFER OF BUSINESSES—THE AGENT'S COMMISSION.

A singular case is reported from Ramsgate which may be of interest to many present and future owners of chemists' businesses. A transfer agent sued a chemist for commission on the purchase of a business, on the grounds that he had given to this purchaser an "order to view," that is, an introduction to the vendor, and that on that order to view was attached a condition stipulating that, should the purchase be concluded without the agent's knowledge, the purchaser would become liable for commission to the agent.

From the available reports of the hearing at the Ramsgate County Court we cannot gather with sufficient clearness what was taken by the judge; but it strikes us as curious that he allowed the case to go on after the plaintiff's claim had been submitted. No evidence of any contract appears to have been given. The words printed on the "order to view," and expressly agreed to by both parties, could have had no binding effect on the person to whom the order was given; and the fact that the agent had failed to obtain his commission from the vendor could give him no claim on the purchaser, unless he sued the latter as bailee of the vendor. The verdict was given in favour of the defendant, but it would have been more satisfactory if it had been given clearly on the ground that the claim was not a valid one.

We understand from good authority that it is quite contrary to the ordinary custom for agents to make any charge to purchasers. But, with this experience in view, we would advise negotiators in all cases to refuse absolutely any "order to view" which did not make it quite clear that no such claim could be preferred. An agent may be expressly employed to purchase, and then, of course, he has a right to his commission; but he has no right to a claim from both buyer and seller.

We hear from the Secretary-General of the Brussels International Pharmaceutical Congress that the Committee appointed to carry out the arrangements regret that the Executive Committee of the British Pharmaceutical Conference have not found it convenient to alter the date of their assembly. The two meetings will not exactly coincide, but the interval between the close of the Congress and the open-

ing of the Conference allows only one clear day. But the Secretary of the Brussels Committee asks us to express to all professors, pharmacists, chemists, and all persons interested in pharmaceutical sciences their cordial invitation to the Congress. It has been found impossible to alter the date of that event, but it is proposed to give the first place in the programme to any subjects for discussion which may specially interest English pharmacists. They desire that it may be understood here that they earnestly hope to welcome a large contingent of British visitors to the Congress.

* *

The Charity Commissioners have drawn up a remarkable scheme for the reorganisation of Christ's Hospital—the famous Blue-coat School. The chief features of the proposal are the establishment of a large school in the country, the admission of girls to the benefit of the endowments in almost equal proportion to boys, instead of as at present to a merely fractional share thereof, and the establishment in London of a science school for boys. In this it is intended to give, besides a general education, special practical teaching of chemistry, drawing, and the use of tools. The benefits of this school are to be for London boys; the fees to be paid are to be between 5*l*. and 10*l*. a year; but 300 free places are to be reserved for suitable boys from the Board Schools, and to 150 of such selected students a payment of 20*l*. a year is to be made. The scheme has yet to be sanctioned by the Education Department and by Parliament, but as an indication of the recognised necessity of more exact scientific teaching it is worthy of note.

* *

The scheme of establishing a School of Pharmacy in Dublin on the limited liability principle offers an excellent opportunity for Irish pharmacists to display their zeal in the diffusion of pharmaceutical knowledge, but will hardly tempt investors who regard the scheme from a financial point of view. The number of candidates who presented themselves last year to be examined for the Society's licence was thirty-four, in the previous year it was seventeen. The College would have no prospect of getting more than a fraction of these students, and with the abundant facilities which Dublin possesses for teaching chemistry and materia medica the chance of attracting other clients is not very reliable.

* *

A Pharmaceutical Association in the Northern section of this kingdom has down for discussion a question which can easily ramify into infinite variations, and will admit of much easuistic argument. The members are guided by a price-book, which fixes the retail price of crushed linseed at 8*d*. per lb. for 1, 2, or 3 lbs., but says that 4 lbs. or upwards may be sold at 6*d*. per lb. The point to be decided is, how many pounds should be given for 2*s*. ?

* *

The case of Barrett & Elers v. the Chemists' Aerated Waters Association (Limited), shows how necessary it is to be careful in receiving empty bottles with the name of another firm branded on them. A mineral-water journalistic contemporary considers that the decision points to a very simple means of preventing the employment of a maker's bottles by other makers, a county court summons being a much simpler proceeding than an action for infringement of trade-mark. But it should be observed that the county court summons is only available when the bottles or syphons have been lent by the maker. If Messrs. Barrett had sold their syphons the customer might have sold them to the Association, and the latter might have kept them; but if they used them they would then become liable to an action for infringement of trade-marks.

* *

We note with pleasure the publication of the third edition of the "Latin Grammar of Pharmacy," by Mr. Joseph Ince. Some additions to the illustrative prescriptions are added in an appendix. Evidently the work is destined to be a standard one among pharmaceutical students.

* *

The influence of the anti-vivisectionists has been remarkably demonstrated by the rally of their forces in the Oxford Con-

vocation, on March 10. They had no chance of a definite victory. Oxford had voted 10,000*l.* to found a physical laboratory, and to refuse to grant 500*l.* a year to maintain it had an air of absurdity. Besides which, every possible concession had been made. No painful experiments were to be allowed for demonstration to students, with or without anaesthetics, and it was only demanded that the professor should have the right of holding a licence for the purpose of scientific research. Many must have felt that unless vivisection experiments were to be suppressed entirely no place so fit for them could be found as the physiological laboratory of Oxford University. But the anti-vivisectionists risked battle on this unfavourable ground, and they mustered 244 votes out of an assembly of 658.

* *

It is not intended to publish any handbooks in connection with the Inventions Exhibition, such as were issued under the authority of the Council of the Health Exhibition. There will instead be separate prefaces to most of the sections of the catalogue, and these introductory notices of the various groups of exhibits are being contributed by gentlemen well known to have special knowledge of the subjects with which they will deal. Among those who are writing group-prefaces are Sir William Armstrong, C.B., hydraulic machines, &c.; Sir E. J. Reed, M.P., naval architecture; Col. Sir Henry Nugent, R.E., firearms, military weapons and equipment, and explosives; Professor Oliver Lodge, electricity; Mr. A. Vernon Harcourt, gas and other illuminants; Capt. Douglas Galton, F.R.S., C.B., railway plant; Professor G. Carey Foster, F.R.S., philosophical instruments and apparatus; Capt. Abney, R.E., F.R.S., photography; Mr. Barclay Squire, musical instruments and appliances, &c.; Professor Armstrong, F.R.S., applied chemistry and physics; Professor Unwin, machine tools and machinery; Mr. Swire Smith, manufacture of textile fabrics; Dr. Hugo Müller, F.R.S., paper, printing, bookbinding, &c.; Mr. E. Rigg, clocks and other time-keepers; Professor H. S. Hele Shaw, elements of machines; Mr. G. Snellus, fuel, furnaces, &c.; Mr. H. M. Jenkins, agriculture, horticulture, and arboriculture; Mr. H. Bauermann, F.C.S., mining and metallurgy; and Mr. W. Anderson, M.Inst.C.E., on prime movers and means of distributing their power.

* *

The *City Press* has published complete lists of the London and Provincial tradesmen who hold warrants of appointment from the Lord Steward, with authority to use the Royal Arms.

Here are the names of the London chemists:—P. W. & A. H. Squire, 413 Oxford Street; Savory & Moore, 143 New Bond Street; George Waugh & Co., 177 Regent Street; John Beddard, 46 Churton Street, Belgrave Road.

The following are the provincial chemists:—Samuel Kay Brothers, Stockport; Ferris & Co., Bristol; Fisher & Sons, Ramsgate; William Dyer, Halifax, Yorkshire; Thomas G. Gibbons, Manchester; Hopwood & Son, Richmond, Surrey; Edward Grisbrook, Windsor. In Scotland, Duncan Flockhart & Co., Edinburgh; Frazer & Green, Glasgow; Davidson & Kay, Aberdeen; and in Ireland, John Evans, Dublin; Hamilton, Long & Co., Dublin.

For mineral waters there are in London, Blake, Sandford & Blake, 47 Piccadilly; Jacob Schweppe & Co., Berners Street; Tannus Water Company, 21 Devonshire Chambers, Bishopsgate; and in the provinces, Charles Mumby & Co., Portsmouth; Charles James Blelock, Chester; A. & R. Thwaites & Co., Dublin.

Further we find for scientific, chemical and physical apparatus, Robert C. Murray, 113 Pentonville Road; for sponge, Newton & Cook, 3 Wardour Street; for tallow and soap, Bracknell, Turner & Sons, Haymarket; for water-filters, Spongy Iron Filter Company, New Oxford Street; for chocolate, Joseph S. Fry, Bristol.

* *

Alexander Bohringer, the director of the *Fabbrica Lombarda* of Milan, has been the subject of several articles in the *Secolo*, a Milan journal, which we find translated in the *Tribune Médicale* of Paris. He was the nephew of M. Bohringer, of Mannheim, and had had experience in chemical work. Expelled from France with the Germans generally at the time of the war 1870-71, he went to Milan, and there, with the efficient aid of a certain M. Castelli, who was mainly

instrumental in collecting the capital, he formed a company for the purpose of manufacturing quinine and other chemicals with a capital of 2,000,000 in shares of 500*fr.* each. He was enterprising, adventurous, and resolute, and possessed the art of winning the esteem of those with whom he came into contact. Business prospered, or at least appeared to prosper, and in 1873 the capital of the company was doubled. The shares were made 1,000*fr.* each, and one time they were quoted at 3,000*fr.* A year before the failure the capital was increased to 6,000,000*fr.* by a further issue of shares. During his reign at Milan Alexander Bohringer was absolute master. No director or shareholder ventured to oppose or criticise any of his schemes, and he regarded him as the author and maintainer of the prosperity of the company. He lived in splendid style at Milan. His apartments, carriages, horses, and stables were the envy of the richest. In 1882 he resigned his position as director and sold his shares, professing that he was going to found a quinine-factory in America. He is said to have actually associated himself with a factory at Stuttgart. Whether failure was declared Alexander Bohringer fled from Milan. His brother Christian was technical director in his place, but news came that Alexander had committed suicide. Christian escaped, professing to watch his brother's débâche. Subsequently it is said the liquidators of the company received a letter in which Alexander Bohringer admitted indebtedness to the company to the extent of 1,000,000*fr.*

Scientific Notes:

On Chemistry, Pharmacy, Botany, Materia Medica, Original, Selected, and Translated.

DETERMINATION OF ALKALOIDS IN CINCHONA BARK.
SCHIMAYAMA modifies H. Meyer's method (see *THE CHEMIST AND DRUGGIST*, 1883, page 184) by not at once shaking the extract of the bark, acidulated with 2 per cent. of sulphuric acid, with chloroform, but first evaporating it down to 20 c.c., filtering, treating the filtrate with 1 gr. of magnesia, drying over a water-bath, and then extracting the dissolved powder in an extraction apparatus for 1½ hour with chloroform. The chloroform extract is first evaporated at a gentle temperature, then dried at 100° C., and weighed as alkaloid.

COMMERCIAL CARBOLIC ACID.†

CHARLES CASTELHAS, in *Moniteur des produits chimiques* reports on the various sorts of commercial carbohc acid, and the means of ascertaining their relative value.

Under the commercial name of "crude carbohc acid" diluents are understood, the value of which depends on their percentage of crystallisable phenol on the one hand or of cresol on the other.

The value of crude carbohc acid is determined by the usual means of fractional distillation and saponification with caustic soda. By the former the percentage of phenol is ascertained by the latter that of cresol, the part admitting of saponification representing cresol and other analogous saponifiable oils.

Fractional Distillation of Crude Carbohc Acid.

Between	90° C.	and 100° C.	.. water.
"	110° C.	" 130° C.	.. light tar oils
"	130° C.	" 190° C.	.. chiefly phenol and little cresol
"	190° C.	" 200° C.	.. chiefly cresol and little phenol
"	200° C.	" 205° C.	.. para cresol

General Tests for Commercial Carbohc Acid.

1. Fifty c.c. of liquid carbohc acid are shaken up in a graduated cylinder with 50 c.c. of distilled water. An increase in the volume of the water indicates the presence of alcohol, glycerine, or sodium phenylate.

2. When 50 c.c. of crude carbohc acid are shaken up in a like manner with dilute sulphuric acid, any noticeable increase in the volume of the sulphuric acid likewise indicates the presence of sodium phenylate.

* *Archiv für Pharmacie*, February, 1885.

† *Pharmaceutische Zeitung*, February 7, 1885.

One hundred c.c. of crude carbolic acid are shaken up with 100 c.c. of a solution of caustic soda (40° Beaumé) and 300 c.c. of distilled water. The insoluble residuc represents the non-saponifiable oils, the saponified portion cresol and its analogues.

Fractional distillation:—

- a) Water.
- b) Products distilling over between 182° C. and 190° C.
- c) Products distilling over between 190° C. and 205° C.
- d) Residuc.

THE ALLEGED THERAPEUTIC VALUE OF VASELINE.

MIELCK, of Hamburg, in the *Monatshefte für praktische Dermatologie*, states that the human skin is impermeable to vaseline, in consequence of which the use of this substance prevents the absorption of such medicaments as mixed with it for this purpose.

PHARMACOPŒIA COMMISSION OF THE GERMAN APOTHEKER VEREIN ON SOME IMPROVED TESTS FOR PHARMACOPŒIA PREPARATIONS.*

II.

Chininum Hydrochloricum (Quinine Hydrochlorate).

Foreign Alkaloids.—Two g. of the salt are mixed with 2 g. of sodium sulphate and 20 g. of water, and the whole allowed to stand at 15° C. for half an hour, frequently shaking the mixture, which is then filtered; 5 c.c. of the filtrate treated with ammonia until the precipitate formed redissolves should require more than 7 c.c. of ammonia for the purpose.

Urophium.—A mixture consisting of 0.05 g. of the salt, 10 drops of sulphuric acid, and 1 drop of nitric acid, should appear of a reddish-yellow colour.

6. *Collodium Cantharidatum.*

Acidity.—All ethereal extracts of cantharides have an acid reaction, for which reason a weak reaction on the part of cantharides collodium is permissible.

7. *Cuprum Oxydatum.*

Sulphuric Acid.—When 0.2 g. of the salt is gently heated in a test-tube with 2 c.c. of dilute sulphuric acid and 2 c.c. of a solution of ferrous sulphate (1:3), the addition of 1 c.c. of strong sulphuric acid to this mixture should not cause the formation of any red or brown ring.

8. *Ferrum Pulveratum.*

Sulphur, Phosphorus, and Arsenic.—The hydrogen gas developed by dissolving 2 g. of the powder in 30 g. of dilute hydrochloric acid should not, in the first few seconds, burn a piece of bibulous paper moistened with a solution of potassium acetate (1:10), nor, when burnt, should the flame produce dark spots upon a piece of cold porcelain.

9. *Lithium Carbonicum.*

Foreign Alkaline Carbonates.—A solution of 0.1 g. of the salt in 1 g. of dilute sulphuric acid, to which 1 g. of water is added, when treated with 4 g. of alcohol, should yield a clear liquid.

10. *Natrium Bicarbonicum (Sodæ Bicarbonas).*

Monocarbonates.—When 2 g. of the pulverised salt are shaken up for ten minutes, at the ordinary temperature, in a closed test-tube, with 15 g. of water, so that the tube is quite full, and the solution thereby formed poured off from the dissolved residue into a test-tube containing 5 g. of a solution of mercuric chloride, within five minutes a white turbidity, but no reddish-brown colouration should ensue.

11. *Pilocarpinum Hydrochloricum.*

Acidity.—A weak acid reaction is permissible.

12. *Resina Jalape.*

Foreign Resins.—Two g. of the resin heated for two hours over a water-bath with 10 g. of ammonia in a well-closed glass flask of about 200 c.c. capacity should yield a solution which does not gelatinise on cooling, which, saturated with acids, yields but a slight flocculent turbidity, and, when evaporated, but a very small residue insoluble in water.

THE DANGER OF NITRO-COMPOUNDS IN SULPHURIC ACID USED FOR MAKING AERATED DRINKS.

At the last evening meeting of the Pharmaceutical Society, Mr. W. A. H. Naylor read a paper pointing out that when nitro-compounds exist in the sulphuric acid used in the manufacture of aerated beverages, the aroma of ginger essence used to flavour the beverages completely disappears in a few hours. Washing with a column of water 4 feet high does not remove the nitrous gas, and the only remedy is to abandon the use of the impure acid.

RENDERING SEA-WATER POTABLE.

MR. THOMAS KAY, of Stockport, lately read a paper before the Manchester Literary and Philosophical Society in which he suggested a method of making sea-water potable by precipitation. He suggests that every ship's boat should be supplied with a quantity of citrate of silver, which should be used for precipitating the chlorides, leaving the sodium, potassium, magnesium, and other constituents in solution as citrates. The solution would be similar to ordinary effervescing draughts after the gas has escaped; it would be slightly aperient or slightly diuretic if taken in too large quantities, but still suitable for moistening the parched mouth. The expense of the silver would be but a small addition to the capital sunk in a ship, and the interest on it would be a small insurance premium against thirst in case of disaster. The value of the silver would not decrease, and could always be realised if disaster did not occur. The scheme seems practicable if the solution of citrates is sufficiently weak to be potable; only experience can prove this. The silver, being very portable, not easily identified, and easily reduced to metallic silver, would offer great temptations to petty larceny.

QUININE ALKALOIDS.*

The inventor has discovered that the alkaloids of Peruvian bark occur in plants of the genus *Artemisia*, from which they can be extracted either in the ordinary manner or according to the following method:—The fresh or dried flowers and seeds, together with the whole plants (the best is *Artemisia Abrotanum* Linn), must be chopped fine and digested in diluted acid (sulphuric, hydrochloric acid, &c.). The extracts obtained by the diluted acid are neutralised and precipitated by a base. From the filtered moist basic mixture the alkaloids are obtained by heat with schist-oil, coal-oil, or petroleum having a low boiling-point, or by means of alcohol. In the latter case the alcohol must be distilled off, the residue must be treated with dilute acid, and the alkaloid precipitated by means of carbonate of soda or another base. From the solution in the hydrocarbons the alkaloids can be transformed into salts by means of acids, and evaporated afterwards by means of carbonate of soda or another base.—*Journal of the Society of Chemical Industry.*

* P. Giacoso. Eng. Pat. 1472, January 15, 1884.

PAPER BOTTLES are now made on a large scale in Germany and Austria. The paper must be well sized, and is composed as follows:—10 parts of rags, 40 of straw, 50 of brown wood-pulp. The paper is impregnated or coated on both sides with 60 parts of defibrinated blood, 35 parts of lime-powder, and 5 parts of sulphate of alumina. After drying, ten or twelve rolled leaves are coated again, placed over each other, and then put into heated moulds. The albumin of the blood forms a combination, on pressure with the lime, which is perfectly impermeable to spirituous liquors. These bottles are made in two pieces, which are joined afterwards.

* *Archiv der Pharmacie*, February, 1885.

ROTHIER ON PERFUMERY.

IN an article on the spiritus odoratus of the United States Pharmacopœia, contributed to the *American Druggist*, Mr. R. Rother makes some general observations on the science of perfume-making, which we extract.

It has long been empirically known that the presence even in small proportion, of certain solids imparts greater lasting qualities to perfumes. For this purpose ambergris and musk stand pre-eminent, then follow orris, tonka, benzoin, &c. There is scarcely a compound odour of any note that does not contain one or more of these substances. Respecting musk, he says, it is strange that so little of the most ordinary physical and chemical properties of such a presumably valuable substance should be known. No modern analysis of musk appears to exist. The Pharmacopœia, in speaking of its solubility, says that one-tenth of it is soluble in alcohol and one-half of it in water. This leaves everything in doubt as to the relative efficiency of these solvents upon the activity and wherein this really resides. The writer, in operating upon the best obtainable "grain" musk, found that strong alcohol readily and completely abstracts the odour and bitter flavour in the formation of a light brown-yellow solution. The residue, when treated with water, yields an insoluble residue and a clear and deep brown-red solution having neither taste nor smell. The addition of potash to this solution deepens the colour, and, aside from evolving a little ammonia and imparting a slight soapy odour, like that produced by alkalies with animal tissues in general, no other change was noticed. Therapeutically it would now be important to know whether the alcoholic solution or the aqueous extraction of the residue contains the medicinal activity. As far as the sphere of perfumery is concerned, this result shows that strong alcohol, pure and simple, is the proper menstruum for extracting musk.

It is a great fallacy to believe that alkalies develop the odour of musk. They strengthen the odour in so far as an abundant effusion of ammonia is concerned, and modify it to the extent of supplanting it with a soapy effluvium. If it is desirable to incorporate an alkali, borax is preferable, as it produces little or no change. In this connection it may not be inopportune to state that borax, in some instances, acts beneficially in regenerating odours that have "turned" or "soured." Some time since, the writer had a large bottle of imported jockey club bouquet, which shortly after opening acquired a sickening odour. It was mixed with some cheap cologne made of bergamot, lemon, lavender, and tolu, and it tainted the whole. After treating small portions of this mixture with various agents, borax was applied to some of it and appeared to improve it. All the mixture was then treated in a similar manner and filtered after macerating about a week. The product was quite good and readily saleable.

Many of the fine bouquets are produced by copious additions of the tinctures prepared from various flower pomades. Although these valuable adjuncts lend the superficial freshness so much admired, they are of no means important, as a great number of most excellent odours are generated without their aid. In fact, the jasmine tincture is fairly competent to replace all others.

A false impression largely prevails that an increased number of ingredients augments the excellence of odours. Owing to this belief and the formidable combinations resulting from its practice, comparatively very few perfumes are compounded in a small way. Most of the best odours are, however, very simple in structure. The art of perfumery consists in skillfully combining a relatively few fundamental odours, so that, whilst effecting their perfect blending, a new aroma results, superior to each component separately. To illustrate this, the following formula is given as an example of a remarkably sweet and lasting perfume produced in this manner:

Oil lemon	½ fl. drachm
Oil rose	40 drops
Oil orange flowers	15 "
Orris root in coarse powder	1½ drachm
Tonka bean in coarse powder	1 "
Musk in grain	7 grains
Alcohol, 80 per cent.	24 fl. oz.

Mix and macerate for seven days, and then filter.

The improvement the writer would suggest in this formula is to employ a full strength, highly rectified or deodorized alcohol, commercially termed "cologne-spirit," and to prepare with this a tincture of the orris and tonka, to which the other ingredients may be then added, and the mixture again filtered after due maceration.

Mr. Rother's formula for cologne water is as under:

Oil bergamot	12 fl. oz.
" lemon	6 "
" lavender flowers	2 "
" orange	2 "
" rose	2 "
Musk, grain, genuine	4 grains
Pure spirit	7½ pint
Water, sufficient to make	8 "

Mix the spirit with 5 fluid ounces of water, and add the remaining members of the formula; macerate the mixture for five days and filter.

BRITISH PHARMACEUTICAL CONFERENCE.

THE following colonial pharmacists have been elected members of the British Pharmaceutical Conference:

Appleby, J., Bareilly, India
Aubin, J., Alexandra, New Zealand
Barnsley, J. R., Diamond Fields, South Africa
Batbgate, —, Calcutta, India
Bell, C. R., Grahamstown, South Africa
Bickford, A. M., Adelaide, South Australia
Blackburn, T. F., Nhill, Victoria
Bliss, T., Simla, India
Borcher, G., Kimberley, South Africa
Briau, W. H., Christchurch, New Zealand
Chamberlain, G. F., Prahran, Victoria
Clarke, D., Maryborough, Queensland
Coaker, N., Jagersfontein, Orange Free State
Counelly, J., Bega, New South Wales
Cook, G. E., King William's Town, South Africa
Cooper, J., Adelaide, South Australia
Cross, C., Gawler, South Australia
Dalton, S. M., Prahran, Victoria
Donaldson, D. D., Du Toits Pan, South Africa
Donaldson, J. E., Brisbane, Queensland
Drummond, D., King William's Town, South Africa
Dyer, S., Pretoria, Transvaal
Eagles, F. T., Melbourne, Victoria
Eeles, A., Napier, New Zealand
Edinburgh, H. D., San Fernando, Trinidad
Edson, J., Auckland, New Zealand
Englis, J., Dunedin, New Zealand
Evans, P. J., Norwood, South Australia
Fleischer, E. T., Humansdorp, Cape Colony
Forster, W. M., Mackay, Queensland
Fox, P. J., Armadale, Victoria
Fyvie, E., Tarraville, Victoria
Gabriel, R., South Yarra, Victoria
Gardner, C. E., Colesberg, Cape Colony
Gordon, J. C., Winnipeg, Canada
Guest, H. W. W., Moonta, South Australia
Hansley, W. M. J., Reefton, New Zealand
Harrison, C., Prahran, Victoria
Hicks, J. A., Brighton, Victoria
Hill, T. B., Auckland, New Zealand
Hirst, C. E., Melbourne, Victoria
Hoeking, W. R., Adelaide, South Australia
Hörnemann, L., Stellerbosch, Cape Colony
Hughes, A. E., Melbourne, Victoria
Hughes, C. H., Maryborough, Queensland
Hustler, F. P., Port Adelaide, South Australia
Joerning, L., Cape Town, Cape Colony
Joerning, L., Stellenbosch, Cape Colony
Jones, J. C., Richmond, Victoria
Levey, G. J., L.S.A., Ermels, Transvaal
Levien, G. E., Takaka, New Zealand
Lower, S. W., Adelaide, South Australia
McLachlan, H. F. M., Winburg, Orange Free State
McLenn, J. E., Toowoomba, Queensland
Making, G. E., Berrima, New South Wales
Marshall, M., Dunedin, New Zealand
Melhuish, T. B., Sydney, New South Wales
Miller, C. B., Graaff Reinet, Cape Colony

Millington, R. S., Inverell, New South Wales
 Moore, T. F., Waipawa, New Zealand
 Morgan, R. S. D., Woodpoint, Victoria
 Parker, G. A., Hindmarsh, South Australia
 Parsons, A. B. W., Lyttelton, New Zealand
 Partridge, T., Darjeeling, Bengal
 Petit, W., Waimate, New Zealand
 Pollard, T. J., Lahore, India
 Preshaw, D. O., Riefton, New Zealand
 Reed, F., Durban, Natal
 Rhodes, G. H., Kimberley, Cape Colony
 Robinson, J. W., Bultfontein, South Africa
 Rührsen, A. B. N., Kimberley, South Africa
 Rowley, W. M., Melbourne, Victoria
 Sanders, H. C., Fauresmith, Orange Free State
 Sanders, R. F., Hamilton, New Zealand
 Sewell, J. R., Oamaru, New Zealand
 Sharland, J. C., Auckland, New Zealand
 Smith, G., Auckland, New Zealand
 Smith, J. L., Port Augusta, South Australia
 Spettigue, J. T., Ladysmith, Natal
 Stoddart, A. L., Hawthorn, Victoria
 Sykes, A. E., Napier, New Zealand
 Thomas, H., Normanton, Queensland
 Thompson, J. D., Melbourne, Victoria
 Tucker, W. F. M., East London, Cape Colony
 Turnbull, J., Hobart, Tasmania
 Turner, W. O., Pietermaritzburg, Natal
 Ward, F. W., Naini Tal, East Indies
 Waring, R. J., Balranald, New South Wales
 Wineh, P. J., Kadina, South Australia
 Wragge, G. S., Boulin, Queensland

Personalities.

Mr. T. DAYMOND, chemist and druggist, Edgecumb Street, St. George, has disposed of his business and is leaving the colony.

The business of Mr. Dickens, 175 High Street, Poplar, has been transferred to Mr. Maitland through Messrs. Edmunds & Co., Chemists' Transfer Agents, 38 Walbrook, London, E.C.

Mr. W. BALLARD has bought the business lately conducted by Mr. Dawson, at 12 Moscow Terrace, South Hackney, through the agency of Messrs. Edmunds & Co., 38 Walbrook,

Mr. DAWSON, late of Hackney, has bought the business of Mr. William Ballard, at 56 Battersea Park Road, S.W. Messrs. Edmunds & Co., Chemists' Valuers, of 38 Walbrook, E.C., were the agents.

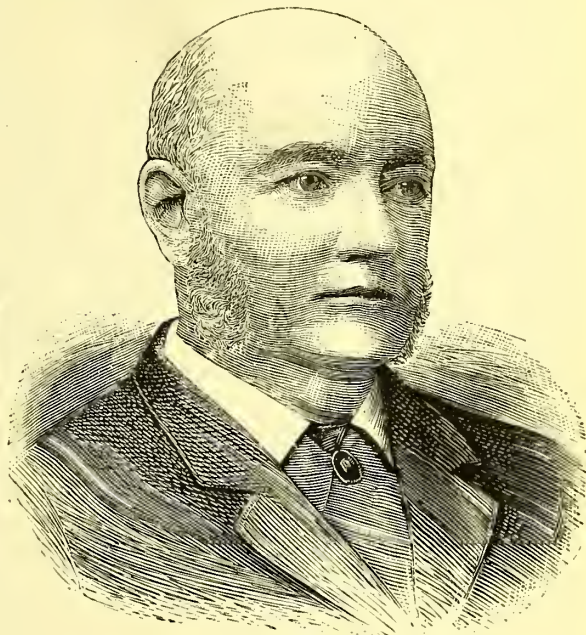
Mr. FREDERICK HOVENDEN has retired from the firm of Henden & Sons, while Mr. C. W. Hoven den has rejoined his brothers, and Mr. R. G. Hoven den, son of the senior partner, has been admitted into partnership.

Mr. W. H. FROM (Messrs. Vines & Froom, 75 and 197 Aldersgate Street) has been installed Master of the Aldersgate Lodge. Mr. Froom is also a member of the St. Botolph's Lodge.

There seems to be no immediate prospect of Mr. Holroyd's princely gifts at Virginia Water being set on foot as yet concerns. The London correspondent of the *Manchester Guardian* says the Women's College, though nearly completed and splendidly furnished, was left almost without comment; and though Mr. Martin Holloway and Miss Lever, the legatees, are doubtless anxious to give effect to the wishes of the deceased benefactor, there appear to be difficulties in the way. The Sanatorium, about a couple of miles from the College, is somewhat further developed, but there also there are unfortunate obstacles. The very able superintendent, Dr. Sutherland Philipps, has worked hard since his appointment to make an effectual start, but he has been checked by the necessity for considerable structural modifications, by the vain search for water at almost unpremeditated depths below the surface, and by various other unforeseen difficulties. It is clear—and it may as well be openly recognised—that the benevolent dream of Mr. Holroyd's life cannot be realised with the resources at present available either for the Sanatorium or for the Women's College.

Obituary.

GELLATLY.—The American journals record the death of William A. Gellatly, the directing partner in the noted firm of W. H. Schieffelin & Co., wholesale druggists, of New York, which occurred, after a few days' illness, on Feb. 13, in the 54th year of his age.



Mr. Gellatly was born at Edinburgh, Scotland, in 1831, and, at the age of four, was taken by his parents to America. At the age of thirteen he entered Messrs. Schieffelin's establishment as errand-boy, and, after passing through various departments of the business, always qualifying himself as he moved upwards for something better, he was admitted to partnership in 1860. Last year he was president of the Wholesale Druggists' Association of the United States, and whenever combined action was taken by the trade Mr. Gellatly was always looked to as a natural leader. Mr. Gellatly is referred to by all who knew him as a man of eminent ability, of amiable manners, and of high Christian character.

BAMFORD.—On February 14, at 33 Carrington Street, Parkway, Liverpool, after a short illness, Thomas H. Bamford. Aged 40. He had been the confidential assistant to Mr. Flint, druggist, Ranelagh Place, for upwards of fourteen years.

BENNETT.—On February 22, at 14 Union Street, Plymouth, Bolina, the beloved wife of R. M. Bennett, chemist. Aged 48.

BARNES.—On February 26, Mr. Francis Joshua Barnes, chemist and druggist, Upper Parliament Street, Liverpool. Aged 34.

CLARABUT.—On February 9, Mr. John Blaxland Clarabut, chemist and druggist, Deal. Aged 66.

CRITCHLEY.—On February 28, Mr. John Henry Critchley, chemist and druggist, Southport. Aged 44.

GIFFORD.—On February 28, Mr. Joseph Alexander Gifford, chemist and druggist, Long Sutton. Aged 67.

GRISTWOOD.—On the 9th inst., after much suffering, Mr. Samuel Gristwood, esteemed, trusted, and valued by Messrs. Francis Newbery & Sons for 40 years.

HENRY.—On February 25, Mr. James Hay Henry, pharmaceutical chemist, Macduff. Aged 133.

HOLLIS.—On February 15, Mr. William Hollis, chemist and druggist, Sheffield. Aged 50.

HUGHES.—On February 12, Mr. Edward Hughes, pharmaceutical chemist, Altrincham. Aged 72.

JOHNSON.—On March 2, Mr. Christopher Barnabas Johnson, chemist and druggist, Hawes. Aged 64.

JONES.—On February 4, Mr. William Jones, chemist and druggist, Llanfyllin. Aged 65.

LEECH.—On March 8, in the 55th year of his age, James Samuel Leech (Jim), for 39 years the faithful and trusted servant of Barclay & Sons, 95 Farringdon Street.

LEITH.—On February 8, Mr. James M. Grant Leith, pharmaceutical chemist, Edinburgh. Aged 59.

LOGGIN.—On February 7, Mr. Charles Frederick Loggin, chemist and druggist, Stratford-on-Avon. Aged 69. Mr. Loggin had carried on business for many years in the High Street, but retired a few years ago in favour of his son. He actively participated in the business of the borough. He occupied the Mayor's chair in 1866 and 1867, and was an alderman at the time of his death besides filling several other public positions. His funeral was attended by the Mayor and a large number of the Council and other representatives of public bodies in the borough. In his private life the deceased was of a cordial and genial temperament, with an entertaining fund of quiet wit, his society being at all times appreciated and enjoyed.

NUTTALL.—On February 20, Mr. Robert Nuttall, chemist and druggist, Heywood. Aged 61.

STEELE.—At 97 Union Street, Plymouth, March 10, Samuel Steele, chemist, after a long and painful illness; much respected.

THOMPSON.—On February 22, Mr. John Hartley Thompson, pharmaceutical chemist, Knaresborough. Aged 28.

TUFF.—On February 25, at Enfield Town, Middlesex, Sophia Tuff, relict of the late John Tuff, pharmaceutical chemist. Aged 84. Mrs. Tuff, says a local journal, "will be greatly missed by many, particularly by those whom she was in the constant habit of assisting in a really too free and unostentatious manner. She gave, not of her bounty, but of her limited means." Her husband, who died in 1871, had carried on the business since 1821.

Trade Notes.

MR. DAVID MCGREGOR has retired from the firm of Bastin, McGregor & Co., wholesale and export druggists, Manchester, and the business will in future be carried on under the style of "Bastin & Co."

* *

MR. JOHN L. SLACK, pharmacist, 144 Stockport Road, Manchester, has entered into partnership with Mr. S. H. Cox, and they are now the proprietors of "The Eau de Seltz Company," 63 Grosvenor Street, Chorlton-on-Medlock. They have also purchased the mineral-water business of Messrs. Bratby & Hinchliffe, Pott Street, Ancoats, Manchester, the latter firm devoting their whole energy to their increasing trade in machinery and essences, &c. Mr. Slack continues to carry on his pharmaceutical business at Stockport Road.

* *

MR. GEORGE H. GAUGE has succeeded to the old-established business (of which he has been manager) lately carried on by Mrs. Tuff, widow of John Tuff, pharmaceutical chemist, of Enfield Town, Middlesex.

* *

MESSRS. NEWBERRY & SONS' "Old Englyssche Cherrye Tooth-paste" is a large-sized pot containing a pleasant dentifrice, and bearing on the cover a very attractive design representing a bit of Old London from the Health Exhibition, into which is interwoven the date of the establishment of their firm. The circular sealed round the pot is a clever imitation of "Old Englyssche" style.

We have received from the London agents of Isers, Cocking & Co., of Yokohama, a sample of a new Japanese peppermint prepared by that firm, the feature of the production being that it has been twice rectified by steam. The oil is quite white, and makes a clear solution in spirit wine. The aroma is very fine, while no degree of its pungency seems to be lost.

* *

A COMPANY has been formed called "The Belfast and London Aerated-water Company (Limited)," proposing to carry on the manufacture of aerated waters "on the Hoffman principle" in London. Authorised capital, 50,000*l.* 1 share, but it is only proposed to raise 10,000*l.* at present. Mr. James Leslie, late of Belfast, is managing director. Premises have been taken at Bankside, Southwark.

* *

MESSRS. THOMAS SYMINGTON & Co., of Edinburgh, are now putting up their various essences of coffee in no larger bottles than heretofore, retaining, however, in every respect the fine quality which has made their article popular. Their pure essence of coffee is put up in 8-oz. bottles, containing thirty cups, for 1*s.*; essence of coffee and chicory, in 10-oz. bottles, for 1*s.*; and essence of dandelion coffee, in 10-oz. bottles, for 1*s.*

* *

WHITING'S DECORATIVE INDELIBLE ETCHING-INK.—Decorative art applied to household articles may be to some extent utilised by the chemist to increase his profits. One example is just now before us. In America Frederick A. Whiting, of Wellesley Hills, Mass., has made a speciality of materials for etching on linen, for doyleys, handkerchiefs, and so on, and provides indelible inks in six colours, designs, alphabets, and linens. Some of the inks are also used as ordinary marking-inks. The London agent for these is Mr. E. J. Billing, 5 Catherine Street, Strand.

Foreign and Colonial.

THE decoration of the Legion of Honour has lately been conferred by the President of the French Republic on Dr. Walter Douglas Hogg, a son of Mr. Hogg, the English chemist, of the Rue Castiglione, Paris.

FRESENIUS' LABORATORY.—The laboratory of Dr. Fresenius, at Wiesbaden, during the recent winter session has been attended by 89 students, of whom 67 were Germans, 7 English, 5 Austrian, 3 American, 2 French, 2 Russian, 1 Swiss, 1 Luxemburg, and 1 Swede.

MR. G. BAILEY, of Invercargill, N.Z., has fitted up a new and handsome pharmacy, a novel feature of which is that the cabinet-work consists chiefly of the red pine from the New Zealand Bush.—Messrs. Macalister & Co. have purchased the drug business in Invercargill previously carried on by Mr. J. D. Hayes.

BATH SOAP-PADS.—One of the great drapery houses in Paris is selling at 4*d.* each little linen bags for bath, described as "Bain savonneux à l'extrait de son," a soft oatmeal soap bath. The bag contains altogether about half a pound of a perfumed mixture of bran, meal, and powdered soap. On wetting and pressing a good lather is produced, as well as a soft pad for rubbing the body.

THE DEATH OF MR. CARL MERCK, of Darmstadt, in his sixty-second year of his age, on the 1st of this month, is reported. The deceased was for many years the mercantile manager of the famous chemical factory at Darmstadt, founded by his father and carried on with such great success by himself and two brothers, only one of whom, Mr. Carl Merck, survives him. The business is now so extensive that thirty clerks, as many chemists and warehousemen, and several hundred workmen are employed. Mr. Carl Merck was highly respected in Darmstadt, where he was always for most in every good work.

STASSFURT BROMINE AND POTASH WORKS.—The demand for bromine has of late been so extensive that orders had to stand over. The price agreed upon by the joint Stassfurt bromine makers for the present year was from 2m. 60p. to 2m. 80p. per kilo., *i.e.*, about 1s. 3d. 4d. per lb. The price during last year was 2m. 50p. per kilo. The total production was 270,000 kilos.—*Chem. Ztg.*

DUGGISTS AND DOCTORS IN INDIA.—According to an analysis of the census taken in 1881, there were in all India at that time, among male British-born subjects, 321 "surgeons and physicians," 30 "apothecaries, hospital and medical assistants, and students;" two "unqualified practitioners," and 30 "chemists and druggists." Among the whole population, in the inclusive class of "physicians, surgeons, and druggists," there were 123,579 males and 75,239 females.

ACCIDENT WITH LYCOPodium.—An account is given in *Journal de Pharm. d'Als.-Lorr.* of a curious accident in a pharmacy. The apprentice was transferring some lycopodium from one bottle to another, when some of the resulting suddenly took fire at a gas-jet near by, with a great explosion. This startled the youth, who dropped the bottle on the floor; a thick cloud of lycopodium dust arose, and itself took fire with a violent explosion, which shattered the windows and broke a good many bottles. The apprentice escaped with a few slight burns.

ARTICLES of incorporation have been filed at Albany, N. Y., for Seabury & Benson Corporation, the incorporators being George J. Seabury, Russell F. Benson, M.D., and John L. Benson. The capital of the company is fixed at \$250,000, its objects are stated to be the manufacture of pharmaceutical specialties. Just what class of goods it intends to produce we are not informed, but the reputation which Mr. Seabury has established, as head of the house of Seabury & Benson, for enterprise, originality, and business sagacity, is a guarantee that the new concern will not be long unheard of. It is stated that a large factory is to be built in one of the Hudson River towns, and that the operations will begin as soon as spring opens.—*Weekly Drug News.*

THE SANTONINE INDUSTRY OF TURKESTAN.—The *Journal of the Society of Chemical Industry*, issued on March 12, contains from a paper by C. O. Cech, of Moscow, in *Dingler's Polytechnic Journal*, some further particulars concerning the manufacture of santonine. The manufacture was carried on up to the present by three works in Germany and one in England, which obtained their raw material at a considerable expense of carriage from Turkestan. Since 100 kg. of worm seed is about 2 kg. of santonine, the new works, situated at the place where the raw product is found, will work under the most favourable conditions. As a matter of fact, two German firms have already resolved upon discontinuing the manufacture of that commodity. The new works will cost 65,000*l.*, are large enough to work up 1,600 tons worm-seed—*i.e.*, to make 32,000 kg. santonine. The residues of the manufacture, formed into bricks, will be used as fuel for boilers and chimneys.

THE GREEK GOVERNMENT AND THE QUININE TRADE.—The frequency of intermittent fever in Greece led to a proposal on the part of the Greek Government to take the matter into their own hands, and they have submitted to the Parliament a Bill to the following effect:—1. The Government shall be entitled to purchase quinine sulphate of the best quality from foreign manufacturers, and to retail the same at cost price, to anyone requiring it. 2. The retail price, which would vary according to the market-price of the article and the cost of carriage and retailing, would be fixed every three months, and the result published in the *Official Gazette*. 3. The costs involved to be borne by the Home Ministry, and the money received to go into the Government Treasury. 4. The purchase and distribution to be effected by military authorities. It is stated that the Greek Government in Germany, France, Austria, and Italy are requested to procure samples of quinine manufactured in those countries, and that these are to be submitted to a Commission of physicians and chemists. The pharmacists in Athens, as is usual, are not in favour of the Bill, and have petitioned against it.

Suggestions.

MESSRS. BARNETT & FOSTER advocate the aëration of British wines as a new variety of beverage.

PAPER and leather may be rendered very pliable by soaking in a solution of 1 part of acetate of sodium or potassium in 4 to 10 parts of water, and drying.—*Polyt. Notizbl.*; from *Am. J. Ph.*

A DRAWING or writing on white paper with chloride of platinum is invisible. But if such drawing is held over a plate containing mercury the lines traced come out in dark tints, giving a very pleasing effect in consequence of the soft tone produced.

PACKING ACIDS.—It has been found that nitric and other dangerous acids travel better when packed in *crushed pumice-stone* than in any other way. This, we are informed, is the experience acquired by numerous shipments to Australia.

BISULPHIDE OF CARBON, according to M. Pasteur, will become the most efficacious of all antiseptics, as it is also the cheapest, costing but a fraction of 1*d.* per lb. in large quantity. It is also the best insecticide known, and for this purpose may, perhaps, be useful to preserve woodwork in tropical countries. At present over 8,000,000 lbs. of the substance are used annually to check the ravages of the phylloxera. It is capable of purification till all offensive odour is removed.

THOSE who use internal-stoppered bottles may be interested to know that when the rubber rings used for patent stoppers become so hard as to be useless, their elasticity may be restored by leaving them for half an hour in two parts of water of ammonia and one of water.—*Min. Water Trade Review.*

QUILLAYA, or soap bark, in powder form, is sold in America in boxes as a pharmaceutical novelty to replace the use of benzine for cleaning fabrics, laces, removing grease spots, &c.

A REMEDY FOR STREET NOISE.—M. D. tells the *Lancet* that he can make himself quite deaf to the barking of dogs and all street noises by placing a little rather stiff spermaceti ointment about the size of a pea in a little square of thin limp cotton, and pressing such little bags gently in the ears.

REMOVING IODOFORM FROM MORTARS.—Mr. Slodki, Nancy (*Un. Pharm.*), first washes his mortar, and employs sawdust if greasy; then to remove the odour of iodoform he pours in a little alcohol, lights it, and stirs it round with the pestle. This removes all trace of the iodoform.

DEXTRINE PASTE.—Dextrine dissolved in hot water is frequently used as a gum or paste for labels. Should the solution become too thick for use in consequence of evaporation, it can only be diluted by again heating to the boiling-point with the required quantity of water, or, more simply, by adding boiling water. Singularly enough, cold water precipitates dextrine even from an aqueous solution, and cannot therefore be employed for the purpose of dilution.

CURD-SOAP SUPPOSITORIES.—Should suppositories having curd soap as the basis be required, the operator must be careful not to use a brass mould in their preparation, otherwise they will certainly be discoloured and quite unpresentable. This is due to the fact that there is always in commercial curd soap a considerable percentage of free alkali, which gives rise to the formation of metallic oxides with the consequent discoloration of the suppositories.

FILTRATION OF TURBID LIQUIDS.—Liquids difficult of clear filtration may, according to Pape (*Arch. der Pharm.*), be readily and cheaply filtered by beating into pap about half the quantity of the paper which would usually be required for filtering, and running this into the filtering-funnels, the stems of which have been previously fitted with small plugs of cotton-wool free from fatty matters.

PUMICE-SOAP FOR PITIRIASIS.—None of the remedies suggested for this disease are so effective in removing the microspores as alkaline pumice-soap. The ordinary pumice-soaps met with in the market are, however, too hard. A good soap for the purpose may, according to *Repert. de Pharm.*, be made by triturating together 100 parts of black soap with 50 parts of pumice-stone, and adding a small quantity of some fragrant essential oil.

Miscellaneous.

A SPANIARD, after gazing at the façade of London University, pointed to the statue of Harvey and remarked to a friend, "Just like you practical Englishmen, to erect a statue to a man because he invented a sauce."

THE DRUG CLERK'S WOOING.

By H. C. DODGE.

"To nitre chamouille," low sighed
The drug clerk to Miss Laura,
"To ether win you for my bride
Or hair-dye in my gore, oh!"

The belladonna silken dress
And gore she knew was sloppy;
"Oh, if you camphor that I guess,"
She cried, "do ask my poppy."

"Thou hartshorn near, and yet so far,"
Groaned the young manna, pining,
"Good bye! I'm morphine search of pi,
Though licorice is falling."

"You must gum gedda kiss," she cried,
And put her arms around him.
"I opium not bold," she sighed,
"Now go to pa and sonnd him."

"I will, and ask cologne," he said,
"And if elixir lover
You'll potash shroud upon the dead
Young man you will discover."

She castor oil black eyes on his—
"I will! myrrh love—I swear it;
If disap-ointment ends this biz
I'm madder-nough to wear it."

"Cummin and citrate down," pa cried,
Unto the youth chammoured.
"May I take chloroform my bride?"
The young man meckly stammered.

"Take Laura? Think her Paris green
Because he took her mother?"
No! sonny. Take a pill serue—
I'll give the girl another."

—*Detroit Free Press.*

[SEQUEL.]

Though strychnine his tender mind,
Said he, "Mistura, look you,
To sarsapar. I'm not inclined,
Nor will I now re-luchu."

"But don't think I'll cinchona chair,
Though I shellac your favour,
This senna G. shall do and dare,
If misce does not waver."

"Anise ung. creta ferri fair,
For many years I've sought her,
Ol. Palmae hates, but I don't care,
I'll caryoph. his daughter."

PATENT SAFETY SAMPLE-BOXES.

THE Patent Safety Sample and Parcels Post Box Company manufacture ingenious boxes fastened by a screw. The box is stamped out of one piece of tin; the lid is of hard wood. Instead of the lid screwing into or over the box, a small wood screw projects from the bottom of the tin, and screws into the very centre of the lid. There is no large screw-thread to get worn or jammed; the lid is easily removed and replaced, and the box is strong enough to bear the roughest usage it is likely to meet in the post. For the sample post they are specially adapted, as they are easily opened and are yet secure, without need of any string, wax, or other encumbrance.



[The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, 4 South Street, Fenchurch Lane, London, and at Paris and Brussels.]

- Abdominal Belt.**—2,305.—February 19, 1885.—A. M. Clark.—A communication from M. Maintenay. An improved abdominal belt or band for wear.
- Administering Injections.**—2,499.—February 24, 1885.—J. C. Burn.—A communication from M. Lowys. An apparatus for administering injections.
- Aerated Beverage.**—2,402.—February 21, 1885.—J. R. Sharp.—An improved aerated beverage, to be hereafter known as "soda," and the method of preparing the same.
- Aerated Liquids.**—2,565.—February 25, 1885.—A. W. L. Rodd.—A communication from H. Robertson. Improvements in apparatus for the manufacture of aerated liquids.
- Artificial-lighting Apparatus.**—2,704.—February 28, 1885.—W. Gould. Improvements in artificial-lighting apparatus for dental operations.
- Asthma, &c. (Remedy for).**—2,465.—February 24, 1885.—J. Gire.—A remedy for asthma and other affections of the throat, chest, and lungs.
- Bandage-winder.**—2,613.—T. Groves. An improved bandage-winder for surgical and other similar purposes.
- Bichromate of Soda.**—1,723.—February 7, 1885.—W. H. Higgin.—Improvements in the manufacture of bichromate of soda.
- Black Pigment.**—2,754.—March 2, 1885.—J. W. Davies. Carbonate of iron converting the refuse from prussiate of potash, alum, and other chemicals into black pigment, applicable for paint, japan, lac, ink, harness composition, indiarubber goods, engine-paint, filters, and other purposes.
- Blue Colouring-matter, &c.**—1,553.—February 4, 1885.—H. E. Eton.—A communication from R. Möhlau. An improved process for the production of chlorinated dimethylparaphenylene-diamine and the conversion of the same into blue colouring-matter containing sulphur.
- Bottle Box and Drainer.**—2,336.—February 20, 1885.—W. Shephard. A safety bottle box and drainer.
- Bottle-opener.**—1,758.—February 9, 1885.—E. Cornclis.—2,267.—February 19, 1885.—H. Codd. Improvements in apparatus for opening bottles used for containing aerated liquids, and which are fitted with internal stoppers.
- Bottle-tools.**—2,401.—February 21, 1885.—H. Codd. Improvements in tools for moulding screw-threads and other forms on the exterior of the heads of glass bottles.
- Bottles.**—1,495.—February 3, 1885.—W. G. Moll. Improvements relating to bottles for beer or other liquids.—1,927.—February 12, 1885.—J. Hall. Improvements in bottles having internal stoppers.
- Bottles (Filling and Closing).**—2,459.—February 23, 1885.—J. Phillips. Improvements in machinery for filling and closing bottles and similar receptacles.
- Bottles or Stoppers.**—1,466.—February 3, 1885.—R. Mayall, junr. Improvements in or relating to bottles or stoppers applicable to bottling beer and other non-aerated liquids.
- Bottles, Stopping.**—1,825.—February 10, 1885.—E. Denning.—1,826.—February 12, 1885.—E. Woodham and P. Ockenden.—2,013.—February 13, 1885.—S. Skeritt.—2,013.—February 13, 1885.—A. H. and J. Guy.—2,192.—February 17, 1885.—F. C. Roberts.—2,269.—February 19, 1885.—F. A. Bird and J. B. Fenby.—2,301.—February 19, 1885.—H. Codd.—2,485.—February 24, 1885.—R. Taylor and J. Scott.—2,768.—March 2, 1885.—F. Walton.
- Bottling Liquids.**—1,567.—February 4, 1885.—E. R. Southby and W. Ramsden. Improvements in the method of bottling beer and other fermented liquids, and in apparatus therefor.
- Capillary Filters.**—1,489.—February 3, 1885.—J. C. Newburn.—A communication from J. A. Tupper. Improvements in capillary filters.
- Carbonic Acid Gas.**—2,645.—February 26, 1885.—J. O. Spong.—An improved means and apparatus connected with the production of carbonic acid gas for extinguishing fire.
- Caustic Baryta.**—1,974.—February 12, 1885.—J. H. Johnson.—A communication from H. Kessler. Improvements in the manufacture of caustic baryta.
- Caustic Soda.**—2,478.—W. Weldon.—A communication from A. Pechiney et Compagnie. Improvements in obtaining solid caustic soda from fused caustic soda.

tic Strontia.—2,761.—March 2, 1885.—W. Weldon. Improvements in the manufacture of caustic strontia.

tical Measures, &c.—2,347.—February 20, 1885.—J. J. Hicks.—Improvements in graduated chemical, medical, and other liquid measures or gauges of capacity and pressure, and in other graduated tubes, bottles, jars, syringes, and articles made of glass.

Colouring-matters.—1,643.—February 6, 1885.—J. Levinstein. Improvements in the manufacture of colouring-matters suitable for dyeing and printing.—2,206.—February 17, 1885.—H. J. Haddan.—A communication from E. Frank and the Farbenfabriken vorm. Friedr. Bayer & Co. process or processes for the production of soluble combinations of certain azo compounds with bisulphites, and for utilising the same in dyeing and printing.

Containers for Charging or Discharging Fluid.—2,736.—February 28, 1885.—W. A. Barlow.—A communication from E. Grube and T. Lehmkuhl. Improved apparatus and containers for charging or filling and discharging fluid and semi-fluid matter.

Drawer.—1,818.—February 10, 1885.—J. H. Smiles. Improvements in machinery for drawing corks.

Corking Bottles, &c.—2,089.—February 14, 1885.—W. A. M. Brown, and A. M. Porter. Improvements in means or apparatus for corking bottles and facilitating the uncorking of the same.

Decarbonation of Carbonate of Barium, &c.—1,982.—February 12, 1885.—W. L. Wise.—A communication from R. A. Radot. Improvements in apparatus for the decarbonation of carbonate of barium and carbonate of strontium.

Disinfectants.—1,748.—February 9, 1885.—A. J. Shilton. A new disinfectant.—2,739.—February 28, 1885.—J. C. Stevenson. Improvements in disinfectants.

Distilling Ammonia.—2,578.—H. Simon.—A communication from the Berlin Anhaltische Maschinenbau-Aetien Gesellschaft. Improvements in apparatus for the distillation of ammonia from ammoniacal liquors, and for the treatment of the resulting ammoniacal vapours.

Distilling Sea-water.—2,173.—February 17, 1885.—T. Kay. A method of and apparatus for making sea-water drinkable.

Drink for Animals.—1,936.—February 12, 1885.—W. Dibbins. An improved compound or liquid drink for cattle and other animals.

Extracting Potash.—2,283.—February 19, 1885.—G. A. Jarvis. Extracting potash from felspar or felsstone rocks.

Filling and Syruping Apparatus.—1,761.—February 9, 1885.—H. M. Thomas. Apparatus for filling and syruping or filling or syruping aerated-water and other bottles.—1,822.—February 10, 1885.—J. McEwen. Improvements in apparatus for filling and syruping aerated beverages.

Filters.—1,471.—February 3, 1885.—W. Begg. An improved filter.—1,510.—February 3, 1885.—F. R. Lipscombe. Improvements in filters.—1,565.—February 4, 1885.—A. M. Clark.—A communication from D. Biggs. An improved filter.—1,762.—February 9, 1885.—W. C. Dickenson and E. Harrison. Improvements in self-cleansing low-pressure filters for the purification of water.—2,250.—February 18, 1885.—F. R. Lipscombe. Improvements in portable filters.—2,635.—February 26, 1885.—A. M. Clark.—A communication from J. Mallie. An improved filter.—2,644.—February 26, 1885.—C. Price and H. Cleave. A water-filter.

Filtering-apparatus.—2,345.—February 20, 1885.—L. A. Groth.—A communication from C. Pieffe. Improvements in apparatus and in material employed therein for filtering purposes.

Filtering Fluids.—2,352.—February 21, 1885.—J. G. Lorrain. Improvements in the filtration and purification of fluids and in the oxidation of matters suspended or dissolved therein.

Filtering Liquids.—2,746.—March 2, 1885.—A. J. Bell. Filtering water or other liquids.

Filtering Medium.—1,717.—February 7, 1885.—J. Robey. The manufacture of a filtering-medium for water and other liquids and of lamp-black.

Fumigator.—1,492.—February 3, 1885.—F. Rosher. An improved fumigator.

Hydrochloric Acid.—2,048.—February 14, 1885.—A. McDougall. Improvements in the methods of obtaining hydrochloric acid in the manufacture of soda from sodium chloride by the ammonia process.

Hygienic Lamp Oil.—1,487.—February 3, 1885.—A. Wright. An improved manufacture of hygienic lamp-oil and the like.

Knee-protector.—2,238.—February 18, 1885.—E. Dummer. The protection of knees from injury while kneeling from disease of the knee-joint.

Magnesium Chloride.—1,900.—February 11, 1885.—E. K. Muspratt and G. Eschellmann. Improvements in the manufacture of magnesium chloride.

Medicinal Preparations.—1,654.—February 6, 1885.—J. Voller. An improved medicinal compound.—1,610.—February 5, 1885.—A. J. Boulton.—A communication from V. Vankeerberghen. An improved medicinal preparation and method of manufacturing the same.—2,706.—February 28, 1885.—C. Werner. Improvements in medicinal compounds.

Mixing Ingredients.—2,770.—March 2, 1885.—(i. Lisekani. A new proceeding in mixing ingredients for colours.

Nitrate of Ammonia.—1,868.—February 10, 1885.—W. R. Lake. A communication from R. S. Penniman. The protection of nitrate of ammonia against deliquescence.

Paint, &c.—1,604.—February 5, 1885.—T. J. Pearce and M. W. Beardsley. Improvements in rendering substances impermeable to air and liquids, in imparting to wood, &c., waterproof and weatherproof qualities, and the property of resisting acids and alkalies, &c.; and in the production of a compound suitable for use as a paint and a protective and preservative coating.

Pill-boxes.—2,590.—February 25, 1885.—A. W. Watson. Improvements in pill-boxes.

Phosphoric Acid.—2,762.—March 2, 1885.—W. Weldon. A communication from E. Lombard. Improvements in and relating to the utilisation of the phosphoric acid of the slag of the basic steel process.

Plastic Compounds.—2,742.—February 28, 1885.—R. E. Gooldeen. The manufacture of improved plastic compounds.

Porto Pessary.—1,786.—February 9, 1885.—F. R. Child. An improved appliance for prolapsus uteri to be known as "porto pessary."

Precipitation of Solid Matter.—1,956.—February 12, 1885.—J. Humphrys. Improvements in apparatus for the precipitation of solid matter held in suspension in liquids.

Purifying Fat, &c.—2,100.—February 14, 1885.—H. H. Lake. A communication from J. P. A. Larson. An improved method or process of purifying fat and oil.

Purifying Liquors, &c.—2,724.—February 28, 1885.—C. D. Abel. A communication from La Société Nouvelle de Raffineries de Sucre de St. Louis. Process for the purification and decoloration of saccharine liquors, juices, or syrups.

Recovering Ammonia.—1,937.—February 12, 1885.—E. W. Parrell and J. Simpson. Improvements in the recovery of ammonia in the manufacture of carbonate of soda by the ammonia process with production of sulphuretted hydrogen.

Scalp Liquid.—1,611.—February 5, 1885.—A. J. Boulton. A communication from H. Rothe. An improved liquid for application to the scalp.

Soaps, &c.—2,210.—February 17, 1885.—C. T. Kingzett. Improvements in the production of compounds which may be usefully employed for the destruction of insects on plants and animals, also as lubricants, also for sheep dipping, and generally as soaps or detergents for washing, cleansing, and purifying purposes.

Suction-valve for Teeth.—2,327.—February 20, 1885.—J. O. C. Phillips. A new or improved suction-valve for artificial teeth.

Sulphur.—2,473.—February 24, 1885.—J. W. Kynaston. Improvements in the manufacture of sulphur from sulphuretted hydrogen.

Syphons.—1,735.—February 7, 1885.—E. Edwards.—A communication from M. Dellvallade. Improvements in syphons.

Syringes.—2,377.—February 21, 1885.—R. Park. Improvements in syringes for injecting the genito-urinary passages and other analogous conduits of animals.

Teeth-cleanser.—2,726.—February 28, 1885.—J. H. Martin. A pocket teeth-cleanser.

Transparent Enamel.—2,615.—February 26, 1885.—W. E. Hart, jun. Liquid "Crystalshine" transparent enamel.

Treating Solutions of Sulpho-cyanides.—1,659.—February 6, 1885.—C. W. Watts and C. F. Claus. Improvements in the treatment of solutions of sulpho-cyanides in order to obtain useful products therefrom.

White Oil.—2,331.—February 21, 1885.—M. Ayrton. Improvements in the production of white oil or grease from black oil or brown grease.

Specifications published during the month:—

Postage 1d. each extra.

1884.

- 4,417. W. S. Richardson and W. J. Grey. Treatment of chloride of sodium to produce bleaching-powder. *6d.*
- 4,480. W. L. Wise. Manufacture of mordants and colouring matters from glucosides, &c. *4d.*
- 4,538. E. De Pass. Furnels for regulating the supply of liquids to bottles, &c. *6d.*
- [4,707. J. B. Thompson. Bleaching. *2d.*
- 4,811. W. J. A. Donald. Manufacture of chloromates and bi-chloromates. *4d.*
- 4,850. J. H. Johnson. Preparation of nitrogen derivatives of tetra-methyl-diamido-benzo phenone, &c. *4d.*

- 4,947. S. G. Thomas. Manufacture of phosphatic salts. 2*d*.
 5,021. F. Wirth. Manufacturing of colouring matters. 4*d*.
 5,042. J. B. Powell. Corking-machines. 8*d*.
 5,130. S. G. Thomas. Manufacture of chromic compounds. 2*d*.
 5,154. J. Inray. Resin soap. 2*d*.
 5,175. J. Brown. Disinfecting-powder. 2*d*.
 5,260. E. Capitaine. Colour starch. 4*d*.
 5,549. S. Plant. Corkscrews. 6*d*.
 5,655. E. G. Colton. Stoppering bottles, &c. 6*d*.
 5,948. W. J. A. Donald. Manufacture of chromates and bichromates. 4*d*.
 5,998. J. S. Gangee and H. S. Wellcome. Substitute for sponges, &c. 4*d*.
 6,320. C. J. Brooksbank. Backing artificial teeth. 6*d*.
 6,973. F. W. Renaut. Preparing a ferment for use in indigo vats, &c. 4*d*.
 6,974. F. W. Renaut. Indigo vats, &c. 4*d*.
 7,056. Sir F. C. Kuowles. Treating sulphides and oxides of metal, &c. 2*d*.
 7,228. J. C. Pickin. Bottles and jars. 4*d*.
 7,951. W. Tickle. Boxes for holding jars, bottles, &c. 6*d*.
 8,056. A. Irving. Purifying water contaminated by dissolved vegetable matter. 6*d*.
 8,148. T. Kempf. Manufacturing iodoform, bromoform, and chloroform. 2*d*.
 8,942. J. Booth. Bottles. 4*d*.
 9,305. W. Weldon. Manufacture of chlorine. 6*d*.
 11,037. F. W. Renaut. Indigo vats, &c. 4*d*.
 11,611. J. R. Sharpe. Bottles for aerated liquids. 6*d*.
 11,833. R. Garbett. Inhalation-apparatus. 6*d*.
 12,534. J. Blocksidge. Stoppering bottles, &c. 2*d*.
 12,542. S. Pulett. Artificial production of ice. 8*d*.
 13,851. P. Molyneux. Sunk tanks for storing oil, &c. 6*d*.
 14,369. F. J. Beaumont and F. S. Turner. Removing globular stoppers, &c., from bottles containing aerated liquids. 6*d*.
 14,770. G. H. Ellis. Filtering, disinfecting, &c., medium. 2*d*.
 14,939. J. S. Davison. Bottle-stoppers. 6*d*.
 14,965. W. H. Thew. Preparation of beverages, &c. 2*d*.
 14,968. F. Rutard and F. Delas. Feeding-bottles. 4*d*.
 15,445. H. C. Sanders. Combination stopper and sprinkler for perfume bottles, &c. 4*d*.
 15,509. J. G. Morey and L. B. Sturges. Dental tools. 6*d*.
 2,896. O. Wolff. Weatherproof oil colours. 2*d*.
 3,797. J. E. Spratt. Electric belt for medical purposes. 6*d*.
 3,948. J. H. Brierley. Body-belts. 4*d*.
 4,195. C. S. Gorman. Manufacture and storage of bichromate of soda. 2*d*.
 4,202. J. Foulis. Draining and consolidating semi-fluid matters. 6*d*.
 4,415. G. W. von Nawrocki. Colouring-matters. 4*d*.
 4,579. C. Lea. Trusses. 4*d*.
 4,846. J. Booth. Stoppering bottles. 6*d*.
 5,038. J. H. Johnson. Preparation of purple, blue, and green colouring-matters. 6*d*.
 5,192. J. C. Martin. Red pigments. 2*d*.
 5,345. C. Billington and J. Newton. Producing alloys of iron or manganese, &c. 2*d*.
 5,382. H. E. Newton. Explosive compounds. 4*d*.
 5,383. H. E. Newton. Evaporation and concentration of liquids. 6*d*.
 5,447. J. B. Austin. Carbide of lime for disinfecting, &c. 2*d*.
 5,458. F. Machenhauer. Manufacture of yellow colouring-matters. 4*d*.
 5,512. J. H. Johnson. Preparation of yellow colouring-matters. 4*d*.
 5,520. W. A. Meadows. Manufacture of sulphate of ammonia. 4*d*.
 5,741. J. H. Johnson. Colouring-matters. 4*d*.
 5,826. H. Barrett. Stoppers for bottles containing aerated liquids. 6*d*.
 5,901. A. M. Clark. Lubricating compounds. 4*d*.
 5,933. R. Irvine. Distillation of shale, coal, &c., to obtain solid paraffin. 4*d*.
 5,945. W. H. and H. H. Bliss. Beverages. 2*d*.
 5,975. J. Wilson. Manufacture of chlorate of potash. 4*d*.
 6,001. G. Jaeger. Preparation of food, &c., for medicinal purposes. 2*d*.
 6,051. W. V. Wilson and J. Storey. Nitro-cellulose compounds. 4*d*.
 6,094. W. Young and G. T. Beilby. Distillation of mineral oils, &c. 1*s*. 2*d*.
 6,176. E. Packard. Obtaining solutions containing free phosphoric acid. 4*d*.
 6,208. G. Weddell. Filtering, water, &c. 6*d*.
 6,215. W. P. Thompson. Purifying sulphuric acid, &c. 4*d*.
 6,271. E. Soustadt. Soaps, &c. 2*d*.
 6,331. F. Wirth. Capsuling-machines. 4*d*.
 6,367. S. G. Thomas. Manufacture of sodium. 2*d*.
 6,401. C. Lowe. Disinfecting powders. 2*d*.
 6,681. C. Thornhill. Substitute for suspensory bandages. 6*d*.
 6,731. W. J. A. Donald. Manufacture of chromates and bichromates. 2*d*.
 6,750. E. Packard. Manufacturing super-phosphates of lime. 4*d*.
 6,751. E. Packard. Obtaining products rich in phosphoric acid from phosphate of lime. 4*d*.
 6,752. E. Packard. Obtaining products rich in phosphoric acid from phosphate of lime. 4*d*.
 6,786. W. P. Thompson. Bleaching mineral oils, &c. 6*d*.
 6,916. H. H. Lake. Hernia trusses. 6*d*.
 6,981. A. M. Clark. Apparatus for heating mineral waters, &c. 1*d*.
 8,409. W. Young and G. T. Beilby. Distillation of mineral oils, &c. 1*d*.
 9,460. T. Slater. Manufacture of chromium alloys. 4*d*.
 10,298. W. S. Frost and others. Medical electric hair-brushes, &c. 4*d*.
 12,897. F. H. Fearn. Stoppers for bottles, &c. 6*d*.
 13,282. A. T. Smith. Filtering sewage, &c. 2*d*.
 13,548. W. Charleson. Varnish for coating ointment-boxes, &c. 4*d*.
 13,579. H. H. Lake. Recovering paraffin, &c., from petroleum oil. 6*d*.
 14,681. C. R. A. Wright. Soap. 4*d*.
 15,456. W. E. Gedge. Preparing alizarine. 2*d*.
 15,496. A. McDougall. Manufacture of ammoniacal salt, &c. 2*d*.
 16,803. J. H. Galloway and J. W. Galloway. Filling and syringing beverages, &c. 4*d*.
 17,044. W. R. Lake. Bottles with internal stoppers. 4*d*.

Third Edition.

1881.

2,417. D. McCullum. Filling and closing bottles. 6*d*.

Second Edition.

1863.

3,131. E. Solvay. Manufacture of carbonate of soda. 8*d*.

1876.

5,061. C. and A. Forest. Drying and powdering blood. 6*d*.

1885.

39. S. R. Hooper. Euphorbia paints. 2*d*.

1840.

8,395. J. Cutler and T. G. Hancock. Cutting corks and constraining necks of bottles. 8*d*.

1877.

1,556. W. L. Wise. Preparing caustic alkalies, &c. 4*d*.

RECEIVING ORDERS.

SMYTH, THOMAS, Water Street, Narberth, chemist, wine and spirit merchant, grocer, and provision dealer. February 21. Exam. March 2, at the Temperance Hall, Pembroke Dock. Court—Pembroke.
 WILSON, RICHARD HENRY, West Percy Street, North Shields, chemist and druggist. February 27. Exam. March 10. Court—Newcastle.

ADJUDICATIONS.

BOULTON, JOE SEELS, 12 Deansgate, Bolton, chemist and druggist. February 23. Court—Bolton.
 LITCHFIELD, JOHN, 50 High Street, and Uttoxeter Road, Longton, chemist and druggist, and seedsman. February 25. Trustee—T. Bullock, Old Receiver, Newcastle-under-Lyme. Court—Stoke-on-Trent and London.
 TAYLOR, WILLIAM HENRY, 38 Walbrook and 186 Tulse Hill, chemist and druggists' agent. February 9. High Court of Justice.
 WOOD, DAVID, 4 Wellington Street and 2 Dubb Lane, Bingley, chemist and druggist. February 5. Court—Bradford.

NOTICES OF COMPOSITION.

HOLMES, GEORGE, 44 King Street, Huddersfield, chemist and druggist and herbalist. Composition of 10*s*. in cash on March 6. Court—Huddersfield.
 PALMER, GEORGE SMITH, 3 Grand Promenade, Brixton, chemist. Composition of 1*s*. 6*d*. Receiving order rescinded. High Court of Justice.

PARTNERSHIPS DISSOLVED.

HOVENDEX, R., & SONS, City Road, Cowper Street, and Berners Street, wholesale perfumers, warehousemen, and vendors of patent medicines, as regards F. Hovenenden, November 27. (Robert Hovenenden, Frederick Hovenenden, and Albert Hovenenden.) Debts by R. and A. Hovenenden.
 SELF-OPENING TIN BOX COMPANY, Kirby Street, Hatton Garden. December 1. (George Featherstone Griffin and John Barrow.) Debts by Griffin.
 TRIMMELL, CHILD & Co., Debnam's Road, Rotherhithe, chemical manufacturers. March 11. (Charles Henry Trimmell and Henry Child.)

Trade Report.

Official figures last published indicate continued and increased depression. The general reduction both in our imports and exports shows that the buying power both here and abroad is diminished, and there does not seem to be any reason for assuming that any of the other great nations are better off than ourselves in this respect. The imports in January, 1885, were valued at 29,458,642*l.*; in February, 1884, 1,001*l.* The exports of home produce for those months respectively were valued at 16,850,218*l.* and 18,908,377*l.*, and foreign and colonial produce re-exported at 6,205,351*l.* 527,346*l.*

Joined are our usual tables of trade in special details:—

Imports.

	Feb., 1883	Feb., 1884	Feb., 1885
Silver lbs.	245,235	384,450	345,225
.. .. . value £	18,140	25,875	30,920
Wheat cwt.	2,477	1,499	2,044
.. .. . value £	18,286	8,250	12,800
.. .. . cwt.	22,135	29,818	24,931
.. .. . value £	576,389	771,411	589,694
.. .. . cwt.	15,038	19,411	4,825
.. .. . value £	24,578	32,738	7,249
.. .. . tons	2,950	1,501	2,936
.. .. . value £	113,234	64,608	118,590
.. .. . cwt.	53,337	54,585	83,020
.. .. . value £	87,388	102,239	119,125
.. .. . galls.	4,177,007	2,781,483	4,240,154
.. .. . value £	126,686	100,309	128,183
.. .. . tons	862	558	1,011
.. .. . value £	29,424	19,110	31,235
.. .. . tons	500	657	1,307
.. .. . value £	21,069	18,967	28,079
.. .. . cwt.	20,058	21,711	23,642
.. .. . value £	38,149	27,942	26,445
.. .. . value £	142,021	116,735	105,423
.. .. . line	18,628	19,084	20,424
.. .. .		27,338	22,073
.. .. .		3,932	414
.. .. . cwt.	8,779	3,403	5,978
.. .. . value £	101,658	37,935	48,225
.. .. . cwt.	7,464	8,864	11,427
.. .. . value £	16,355	31,128	40,591
.. .. . cwt.	11,252	10,358	4,562
.. .. . value £	51,454	48,977	14,612
.. .. .	81,585	71,453	64,700

Exports.

	Feb., 1883	Feb., 1884	Feb., 1885
.. .. . cwt.	482,322	441,558	432,180
.. .. . value £	144,914	147,221	128,060
.. .. . cwt.	120,300	128,093	103,921
.. .. . value £	26,040	60,091	34,872
.. .. .	73,612	65,599	64,572
.. .. .	149,357	152,327	145,749
.. .. . cwt.	7,996	3,986	8,336
.. .. . value £	64,690	29,099	47,216
.. .. .	18,350	17,581	18,978

MINING LANE, March 12.

will be easily understood that at the present moment, rounded as we are by disturbing elements of all kinds, business is in a most unsettled state, as from day to day it appears more difficult to imagine what is about to happen next. The Board of Trade returns for last month are discouraging; in the extreme, although, on the other hand, it must be borne in mind that, through wars and rumours of wars, the branches of our home industries are already suddenly plunged into a state of extreme activity, which cannot be continued for long without directly influencing the open markets.

Reports that, in order to meet the increased expenditure, new or augmented duties are about to be imposed upon certain articles of colonial production, have also not been wanting, causing fits of firmness to take place here and there.

The drug sales held on March 5 and 6 went off generally with a firmer tone, cubebs, gum arabic, Cape aloes, and other articles showing improved values. Saffrons of good import are also in a much firmer position, and quinine, although at the moment low and depressed, can hardly be expected to remain so for long if, as the present outlook would seem to indicate, large standing armies are to be retained both in Asia and Africa during the ensuing summer.

ACIDS.—*Citric* has improved in price to 1*s.* 5½*d.* to 1*s.* 6*d.* per lb., and in doing so has attracted some fairly considerable business from consumers. At one time speculators operated largely in this article, but of late years heavy losses appeared to have quite disheartened them. *Tartaric*.—English steady at 1*s.* 8*d.* per lb.; but foreign is easier at 1*s.* 7*d.* to 1*s.* 7½*d.* per lb. *Oralic* has given way to 5*d.* per lb. net.

ALUMS in last sales showed increased firmness, and of 176 packages Cape offered 101 found buyers at dearer rates of 36*s.* to 38*s.* per cwt. bright, and 25*s.* to 34*s.* per cwt. for inferior to medium qualities.

ALUM meets with continued demand at 5*l.* 17*s.* 6*d.* lump, and 6*l.* 5*s.* ground per ton.

ANTIMONY.—During the last few days, out of several inquiries, some fairly large contracts have been passed. It is asserted on good authority that the lots of crude antimony which have been recently sold at unusually low prices here had evaded payment of export from Japan. Prices have a somewhat hardening tendency. *Regulus*, at 39*l.* to 40*l.* per ton, meets with steady business.

BALSAMS still fail to find buyers. In last sales, 14 packages *Peru* bought in at 5*s.* 10*d.* to 6*s.*, 8 cases *Tolu* at 1*s.* 8*d.* to 1*s.* 9*d.*, and 26 packages *Capivi* at 1*s.* 8*d.* per lb.

BARK.—Not long since we remarked that it remained to be seen what effect the improved rates then being obtained for cinchona bark in the London market would have upon the producing districts, and we now have the result in the fact that, whereas previously bark arrivals here had fallen off to about 3,000 packages monthly, they have now quite recovered their former average of 5,000 to 6,000 packages per month. Notwithstanding recent large arrivals of Ceylon bark, however, only 780 packages were offered in last Tuesday's sales, and of which the bulk sold; but of 220 packages South American offered only 80 sold, prices ruling, if anything, a little easier than formerly.

BLEACHING POWDER remains at 7*l.* 10*s.* per ton ex warehouse, with very restricted business.

BORAX, at 40*s.* per cwt., meets with a steady consumptive trade.

BROMINE continues very scarce.

CALUMBA ROOT.—176 bags of all qualities were offered in last sales, some low selling at 24*s.* per cwt., and better sorts bought in at 35*s.* to 55*s.* per cwt.

CAMPHOR continues in a firm position, and refined foreign makes are especially steady. It must be borne in mind that the present prices of raw camphor—55*s.* to 57*s.* per cwt.—are very low, bordering very closely upon the lowest figures on record, and resulting, no doubt, from the large quantities of both China and Japan with which our markets have of late been stocked. It appears now, however, very probable that arrivals of the Chinese production will be considerably reduced, if not for a time altogether stopped, by the warfare now being carried on in the camphor district by the French, the trees being principally cultivated upon the Chinese islands. The Japanese production will, of course, not be interfered with, but the supply of Chinese raw camphor once cut off the competition will be at an end, and higher rates for Japan must be expected as the natural result.

CAMPHOR OIL.—None offered in last public sales.

CANTHARIDES.—Good Russian flies are being offered rather more freely, and about 6s. per lb. would now be accepted.

CARDAMOMS.—Of 194 packages offered in last sales half sold at earlier rates. Good Ceylon Malabar sorts, 3s. 3d. to 4s. 11d. per lb.

CASSIA LIGNEA, at further reduced rates, has experienced some fairly extensive business, 1,100 boxes having recently changed hands at 26s. to 26s. 6d. per cwt.

CLOVES, after experiencing a somewhat smart demand, which at the time increased price fully $\frac{1}{2}$ d. per lb. Zanzibars fell back last week to about last month's quotation, but recovered again in yesterday's sales to $6\frac{3}{4}$ d. per lb. for fair bright quality. Only 160 bags offered.

COCHINEAL, notwithstanding a very limited demand, continues to be firmly held at previous rates.

COD-LIVER OIL.—The reports of this year's fishing, although somewhat conflicting, lead us to anticipate very favourable results, in which view we are supported by present features of the market. In last sales 34 casks Newfoundland straw and yellow sold without reserve at 3s. 6d. per gallon.

CREAM OF TARTAR has further given way in price to 126s. 6d. per cwt. without attracting much attention.

CUBEBS have fully confirmed our last report, and, although 49 bags were offered in last public sales, the prices at which they were bought in (13l. 10s. to 17l. per cwt.) tend only to show the firmness of holders.

ERGOT OF RYE has attracted more attention of late, and of 101 packages Spanish 57 sold at $8\frac{1}{2}$ d. to $8\frac{3}{4}$ d. per lb.

ESSENCE OF LEMON.—The extreme depression which has characterised this and other Sicilian articles for a considerable time past appears to be at last giving place to a revived demand, and more business has been done of late, prices ranging from 3s. 6d. to 4s. per lb., f.o.b. Messina.

GALLS.—About 500 bags Turkey offered in last drug sales were nearly all bought in at 52s. to 57s. 6d. per cwt.

GINGERS of all descriptions are slightly cheaper than last month. Some new crop Cochin and Jamaica now being offered.

GUM ARABIC.—All descriptions are firmly held, and with the present state of Eastern affairs lower rates are not to be expected. Good Turkey sorts rule at about 6l. per cwt., and picked from 7l. 10s. to 10l. per cwt. Nearly 700 packages of various qualities were offered in last sales, but only the lower East India qualities found buyers.

GLYCERINE.—Present remarkably low rates are inducing good steady business.

HONEY.—Heavy quantities of Californian are continually being offered in public sales, and stocks remain large.

IODINE.—Only small business at unchanged rates.

IPECACUANHA continues steady, the smallness of stocks causing late values to be well maintained.

ISINGLASS.—Business during the month has been limited to retail orders for good leaf and Penang tongue at steady prices. At the public sales, held the 24th ult., 543 packages East India met a very depressed demand, only 156 finding buyers, as follows:—*Penang*.—Of 180 packages 40 sold: leaf, good to fine, 3s. 8d. to 3s. 10d.; small medium, 3s. 4d. to 3s. 7d.; low dark and pickings, 1s. 5d. to 2s. 7d. per lb. *Purse*, low to good, 5d. to 1s. per lb. *Tongue*, small ordinary to good middling, 3s. 2d. to 3s. 6d.; low dark to good ordinary, 2s. 1d. to 2s. 10d. per lb. *Saigon*.—Of 191 packages 49 sold: leaf, good to fine, 3s. 3d. to 3s. 8d.; reddish and pale, 3s.; pickings, 1s. 9d. to 2s. 10d. per lb. *Tongue*, thin to ordinary, 10d. to 2s. 9d. per lb. *Purse*, low, 4d. per lb. *Bombay*.—Of 162 packages 67 sold: tongue, fine pale bright old, 2s. 9d.; ordinary to middling, 1s. 4d. to 1s. 10d. per lb. *Pipe*, low to good, 10d. to 2s. 5d. per lb. *Kurrachee*.—Leaf, 1s. 8d. to 2s. 6d.; bladder, 1s. 4d. to 2s.; *purse*, 4d. to 10d. per lb. Also 13 packages China fine circular leaf sold at 2s. 6d. to 4s. 6d. per lb. Next sales 31st inst.

LEMON-JUICE has, in sympathy with citric acid, considerably improved in value, and is now worth 20l. 15s. per ton, f.o.b. Messina, thus confirming last month's firmness reported by us.

MENTHOL CRYSTALS.—Business very quiet, at 35s. to 40s. per lb.

MORPHIA SALTS are in poor demand at unchanged prices 5s. 6d. per oz.

MUSK.—Stocks of Tonquin being small, values are maintained, and in last sales best of this description made 35s. per oz.

OPIMUM.—Although values must be called unchanged, druggists' qualities have met with more inquiry during the last few days.

OILS.—H. G. Hotchkiss peppermint oil is again dearer, as much as 18s. 9d. per lb. is stated to have been paid lately. Although in a firm position, business done is of a restricted character. Finest Japan peppermint oil, 17s. per lb.

OTTO OF ROSES is in fairly good demand, especially for the medium and lower qualities, and a recent slight reduction in price of one or two of the most costly brands is likely to lead to more extensive business in them also.

PETROLEUM OIL, through smallness of stocks, is considerably dearer for spot, at $7\frac{3}{4}$ d. to 8d. per gallon, although forward deliveries attract but little attention, because whereas present stock is only about 60,000 barrels, against 300,000 last year, there is plenty afloat and loading for London.

PETROLEUM SPIRIT, $7\frac{1}{4}$ d. to $7\frac{3}{4}$ d. per gallon.

PIMENTA continues in very restricted demand, although fine is worth a little more, very bright quality making 4s. per lb.

POTASH, CHLORATE, remains in a very steady position 6d. per lb.

POTASSIUM.—*Bromide*, American make, 1s. 5d. per lb. *Iodide*, in restricted demand, although prices remain 11l. 12s. per lb., according to make.

QUICKSILVER continues very quiet, official price, 6l. per bottle, but obtainable at less. This being just about the price at which the Californian production can be kept out of this market or rendered unprofitable to bring here, Spain may be expected to remain for some time at or about this figure.

QUININE has given way slightly in value to the following quotations. Howard's 1-oz. bottles, 4s. 6d.; French, 1l. bottles, 4s. 6d.; foreign bulk, in tins, 3s. 9d. per oz. The reduction has probably been brought about through a temporary slackness of demand after the considerable business a few weeks ago. It is hardly to be expected, however, that the present quiet state of the market will continue very long, considering the time of year and how many circumstances may arise to make this valued drug needed in considerable quantities both here and abroad.

RHUBARB remains in a steady position, with *She* slightly dearer at 2s. 9d. to 3s. 9d. per lb., according to quality.

SAFFRON continues in a very firm position, and prices have advanced somewhat since date of our last report, and quotations in Spain are above those ruling here. Such being the case any serious increase in demand would probably have the effect of further increasing values considerably.

SAL AMMONIAC.—A fairly extensive trade doing at reduced prices of 38s. to 40s. per cwt.

SALTPETRE.—Firm; refined at 22s. to 23s. per cwt.

SARSAPARILLA.—Arrivals have been small lately, improving the demand. In last sales, of 40 bales Jamaica offered 19 sold at 1s. 6d. to 1s. 8d. per lb.

SODA.—Crystals have further improved to 2l. 18s. per ton ex ship here, 2l. 11s. 6d. Tyne. Bicarbonate, very small business at 7l. 15s. per ton ex warehouse. Caustic in steady demand.

and; cream at 8l. 10s. to 8l. 15s., and white, 60 per cent., ton.

S.—Although business is most restricted China firmly maintains value of 1s. 6d. per gallon.

S. PHATE OF COPPER.—Quiet, at again slightly easier at 17l. 5s. to 17l. 10s. per ton.

PARINDS.—In consequence of improved demand and arrivals West India have improved considerably in value per cwt.

PERUENTINE.—Prices of American spirit have slightly improved; spot, 21s. 9d. to 22s.; March-April, 22s. to 22s. 3d.; August, 22s. 9d. to 23s., and September-December 23d. to 24s. per cwt. Present stock 41,000 barrels.

VILLOES again met with good business in last sales, and 208 tins offered 143 sold at unchanged rates, highest realising, as previously, 24s. 6d. per lb.

COD-LIVER OIL.

SSRS. W. GRAHAM CARR & SON, Berwick-on-Tweed, us the following note, together with a sample of the season's oil, which seems very fine :—

cod-fishing on the Norwegian coast, especially in the northern parts, has up to now proved exceptionally good. In order from our buyer, at present in Tromsø, dated March 2, says the number of cod taken up to the end of February averaged over 7,000,000, against 2,000,000 in 1884, 3,000,000 in 1885, 2,000,000 in 1882, and 6,000,000 in 1881; the latter when considered a good fishing, and oil was that year cheap, so there is every reason to believe, should the weather continue favourable, that cod-liver oil will this year show low figure.

own fishing on the Scottish coast has this season been very good, the livers of the fish being very rich. Our fleet of boats on this part of the coast has been much larger last year, viz., 28 trawlers, 115 deep-sea boats, and 40 boats, which have from October 1 averaged four days a week at it, that being exceptionally good fishing.

(FROM OUR AMERICAN CORRESPONDENT.)

NEW YORK, March 2.

NG the past month the home trade has been rather dull, ly caused by the unusually severe weather prevailing in the North. Some of the railways have for weeks been blocked up with snow; and the carriage of the mails, and generally, has been much delayed. In spite of these drawbacks some of the staple drugs, especially those exported, are advancing; and, with few or no additions to the stock received, the increase of trade which is expected to accompany a return of mild temperature will, it is thought, further stimulate prices.

the prices in parentheses in sterling are what the different articles would cost delivered in London, all market allowances, discounts, &c., being taken into account. Importers can therefore, see at a glance the course of the market compared with their own.

ALSAMS.—The stocks here of *Copaiba* are still large, and in the face of the total imports falling off 80 tons in 1884 compared with 1883. Prices, however, show increasing firmness, *Para* being quoted 39c. (1s. 9d.); thick bright *Maracibo*, 38c. (1s. 8½d.); *Maracaibo*, 35c. (1s. 7d.). *Canada* is in moderate request at 35c. (1s. 7d.). *Tolu*.—In the face of demand prices are easier; 34c. (1s. 6½d.) would be accepted for some lots in first hands. *Peru*.—Total stock in importers' hands, 14 cases, held for \$1.50 (7s.).

ASCARA SAGRADA BARK.—A large demand exists, but, owing to competition, the market has dropped to 15c. (8d.) the best quality.

ONCA BEANS.—The price of frosted *Angostura* has declined to \$1.10 in case lots, but for large parcels from first lots \$1 per lb. (4s. 3½d.) would probably be accepted. Owing to heavy supplies continuing to arrive, higher rates are not anticipated. *Para* are neglected, consumers preferring *Angostura* now they are so cheap.

CALIFORNIAN HONEY.—Stocks here are light, but, owing to the demand for export falling off, prices are lower. Prime white candied in cases is quoted 7½c. (37s. cwt.). In last month's report it should have been stated that the statistics of exports from San Francisco included both strained and comb.

BORAX.—This article meets with no export inquiry. It is presumed supplies go direct from California. There is a large demand in the home trade for concentrated, being much cheaper than city refined. The price is 7c. per lb. (33s. 6d. cwt.).

CAMPHOR.—Refined has advanced to 17c. (9½d.), and 4-oz. blocks to 18c. (9¾d.); higher prices are expected soon.

COD-LIVER OIL.—There is no change to report, and no demand for export.

ESSENTIAL OILS.—The supplies of *Sassafras* have been gradually falling off, chiefly caused by the severe weather putting a stop to distilling, and prices are tending upwards. For prime, strictly pure oil 46c. (2s. 1d.) is easily obtained; indeed, it is stated less would not pay the producers. *Wintergreen*.—Large stocks have accumulated, owing to the absence of demand; the distillers were obliged to suspend operations, prices not proving remunerative; the price now asked, \$1.90 (8s. 2d.), should attract attention. *Spearmint* sales are making at \$6.50 (26s. 6d.), but only in a small way, owing to the high price. *Pennyroyal* is dearer, \$1.25 being now quoted (5s. 6d.).

BROMIDE POTASSIUM.—Makers are very firm in their views, and, owing to demand, can hardly keep pace with their orders. Several shipments have been made to Japan, and more are in hand; price, 31c. to 32c., according to maker (1s. 4½d. to 1s. 4¾d., 5 per cent.).

CUBEBS.—There has been a kind of war raging here between rival importers of these berries, and for a time it was difficult to say what the price was, as quotations ranged all the way from 50c. to 80c. (12l. to 19l.); the latter figure is, however, the general price now for prime. *Very old bogus berries* are said to be mixed with the cheaper offering.

ROOTS.—During the year 1884, 590 bales of *Jalap* were imported, compared with 240 in 1883, the price as a rule declining all along. Supplies continue to arrive freely from Vera Cruz, and price still tends lower. Prime root is quoted 13c. (7½d.). *Sarsaparilla*.—Mexican is in very short supply, and badly wanted; 12c. (6¾d.) is quoted by the wholesale houses; there is no stock in first hands. Honduras.—The stock here is represented by 180 bales of all brands; for M.C. crown 50c. (2s. 3½d.) is demanded; lower grades run from 34c. to 42c. (1s. 7d. to 1s. 11d.). *Senega* has advanced to 48c. (2s. 2d.) for good and 52c. (2s. 5d.) for choice bright Western; this latter grade is very scarce. *Serpentaria*.—No quantity can be had, and of late high prices have to be paid. *Pink Root*.—The market here is almost bare of stocks, a large consumer having bought all up; ordinary is worth 30c. (1s. 4½d.): with tops there is none.

SPERMACEI.—Owing to makers being oversold some months ahead, the price has advanced to 30c. (1s. 4d.).

OIL PEPPERMINT.—During the early part of February a large demand for home consumption set in, and the price kept rapidly rising, until holders were obliged to ask almost prohibitive prices in order to retain control of any stock. This demand was brought about by consumers here having at last opened their eyes to the condition of supplies in the producing districts, and to a cholera scare. Matters are quieter now, but high rates have been firmly established, and very little would send them on the move upward again. The growers in Wayne are angry with themselves for having parted with the crop at even the high rates they obtained, and will certainly not part with next season's easily. Bulk oil is now in such limited stock that holders are few, and these are determined to keep a firm grip on what is left, even if they have to carry it over to next year. Hotchkiss brand is represented by the smallest stock for over ten years; it is not in much demand for home consumption; and, as to export, the London market is cheaper. Market prices.—Tin oil, \$4.25 (17s. 9d. net, no allowances); H. G. Hotchkiss, \$4.50 per lb. (19s. 9d.).

Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mining Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.

ACIDS—		Last Month		This Month	
		s. d.	s. d.	s. d.	s. d.
Acetic	per lb.	0 2½	0 0	0 2½	0 0
pure	"	0 5	0 9	0 5	0 9
glacial	"	0 6	1 0	0 6	1 0
Benzoic Sublimate	per oz.	0 0	3 6	0 0	3 6
Ex Gum.	"	0 6½	0 0	0 6½	0 0
Citric	"	1 4½	0 0	1 5½	1 6
Gallic	"	3 2	3 6	3 2	3 6
Hydrochloric	per cwt.	4 6	7 6	4 6	7 6
Nitric	per lb.	0 3	0 3½	0 3	0 3½
Oxalic	"	0 6	0 0	0 5	0 0
Sulphuric	"	0 0½	0 1	0 0½	0 1
Salicylic	"	6 9	9 6	6 9	9 6
Tannic	"	1 4	2 9	1 4	2 9
Tartaric, English	"	1 8	0 0	1 8	0 0
foreign	"	1 7½	0 0	1 7	1 7½
ANTIMONY, crude	per cwt.	22 0	0 0	22 0	0 0
star	"	40 0	41 0	39 0	40 0
ARSENIC, lump	"	22 0	24 0	22 0	24 0
powder	"	12 6	12 9	12 6	12 9
BRIMSTONE, rough	"	8 0	8 6	8 0	8 6
roll	"	8 9	9 9	8 9	9 9
flour	"	10 0	12 6	10 0	12 6
GLYCERINE, German	"	50 0	52 6	47 6	50 0
refined	"	37 6	42 6	37 6	42 6
crude brown	"	17 0	0 0	17 0	0 0
IODIFORM	per lb.	0 8½	0 0	0 8½	0 0
IODINE, dry	per oz.	1 0	0 0	1 0	0 0
resublimed	"	0 10	1 4	0 10	1 4
MAGNESIA, calcined	per lb.	5 0	0 0	5 0	0 0
Hwds.	"	133 0	135 0	130 0	135 0
MERCURY	per bot.	2 11	0 0	2 11	0 0
PRECIPITATE, red	per lb.	1 8	2 0	1 8	2 0
white	"	11 6	0 0	11 6	0 0
PRUSSIAN BLUE	"	10 0	0 0	10 0	0 0
SANTONINE	"	35 0	0 0	35 0	0 0
SALICINE	"	117 6	0 0	117 6	0 0
THYMOL	"	125 0	0 0	125 0	0 0
SALTS					
Alum	per ton	0 5	0 5½	0 5	0 5½
powder	"	560 0	600 0	560 0	600 0
Ammonia:					
Carbonate	per ton	280 0	295 0	280 0	295 0
Hydrochlorate	"	83 0	96 0	83 0	96 0
crude, white	per cwt.	70 0	90 0	70 0	90 0
Sulphate	"	38 0	42 0	38 0	42 0
Argol, Cape	"	8 0	0 0	7 6	0 0
Red	"	40 0	42 0	40 0	42 0
Oporto, red	"	2 6	0 0	2 6	0 0
Bleaching powder	per lb.	4 5	4 7	4 5	4 7
Borax, British refined	"	5 6	6 0	5 6	6 0
Calomel	"	17 6	18 0	17 6	18 0
Chloral hydrate	per cwt.	45 0	55 0	45 0	55 0
Liebreich's	"	2 2	0 0	2 2	0 0
Copper:					
Sulphate	per cwt.	127 6	0 0	126 6	0 0
Copperas, green	per ton	109 0	0 0	109 0	0 0
Corrosive Sublimate	per lb.	3 6	5 0	3 6	5 0
Cream Tartar, French	per cwt.	3 6	5 0	3 6	5 0
brown	"	40 0	0 0	40 0	0 0
Epsom Salts	"	72 0	0 0	72 0	0 0
Glauber Salts	"	6 0	0 0	5 6	0 0
Magnesia: Carbouate	"	2 3	2 4	2 3	2 4
Pond, Hwds.	"	0 3½	0 0	0 3½	0 0
Morphine Murias	"	29 0	0 0	29 0	0 0
Phosphorus	per lb.	46 0	46 6	46 0	46 6
Potash:					
Bichromate	"	0 6	0 0	0 6	0 0
Carbonate:					
To ashes, Canada	per cwt.	0 10	0 10½	0 10	0 10½
1st sort	"	1 11	2 0	1 11	2 0
Pearlshashes, Canada	"	10 6	11 6	10 6	11 6
1st sort	"	0 6	0 0	0 6	0 0
Chlorate	per lb.	0 10	0 0	0 10	0 0
Prussiate	"	1 11	2 0	1 11	2 0
red	"	10 6	11 6	10 6	11 6
Sulphate	per cwt.	1 8	0 0	1 5	1 8
Potassium:					
Bromide	per lb.	9 0	0 0	9 0	0 0
Chloride	per cwt.	12 0	0 0	12 0	0 0
Iodide	per lb.	4 8	0 0	4 6	0 0
Quinine:					
Sulphate, British, in	per oz.	4 6	0 0	4 6	0 0
bottles	"	4 1	4 3	3 9	4 0
Sulphate, French	"	0 8	0 8½	0 8	0 8½
Sulphate, German	per lb.	40 0	42 0	40 0	42 0
Sal Acetos	"	16 3	16 6	16 3	16 6
Sal Ammoniac, British	per cwt.	16 3	16 6	16 3	16 6
Saltpetre:					
B engal, 6 per cent. or	"				
under	"				

Saltpetre:—(cont.)

Bengal, over 6 per cent.	per cwt.	16 0	to	0 0	16 0	to	0 0
British, refined	"	22 0	0	23 0	22 0	0	23 0
Soda: Bicarbonate	"	7 9	8 0	7 9	8 0		
Hwds.	"	45 0	0	0	45 0	0	0
Carbonate:							
Soda Ash	per deg.	0 1½	0 0	0 1½	0 0		
Soda Crystals	per cwt.	2 10½	0 0	2 10½	0 0		
Caustic	"	8 9	9 0	8 9	9 0		
Hyposulphite	"	8 0	8 6	8 0	8 6		
Nitrate	"	11 3	0 0	11 3	0 0		
Zinc Sulphate	"	12 0	14 0	12 0	14 0		
SUGAR OF LEAD, White	"	30 0	34 0	30 0	34 0		
Brown	"	26 6	0 0	26 6	0 0		
VERDIGRIS	per lb.	0 9½	0 11	0 9½	0 11		
VERMILION, English	"	2 3	0 0	2 3	0 0		
China	"	2 4	0 0	2 4	0 0		

DRUGS.

ALOE, Hepatic	per cwt.	60 0	80 0	60 0	80 0
Scotrine	"	60 0	150 0	60 0	150 0
Cape, good	"	33 0	36 0	36 0	36 0
Inferior	"	25 0	32 0	27 0	32 0
Barbados	"	40 0	120 0	40 0	120 0
Curacao	"	25 0	55 0	25 0	55 0
AMBERGRIS, grey	per oz.	60 0	80 0	60 0	80 0
BALSAM—					
Canada	per lb.	1 10	2 0	1 10	2 0
Capivi	"	1 7	1 8	1 7	1 8
Peru	"	6 6	7 0	5 10	0 0
Tolu	"	1 10	0 0	1 9	0 0
BARKS—					
Canella alba	per cwt.	25 0	27 6	25 0	27 6
Cascarilla	"	40 0	45 0	40 0	45 0
CINCHONA—					
Peru, grey	per lb.	0 9	1 8	0 9	1 8
Calisaya, flat	"	0 6	2 0	0 6	2 0
quill	"	0 10	3 0	0 9	3 0
Carthagenia	"	0 4	1 3	0 3	1 3
Columbian	"	0 6	1 9	0 6	1 9
Cuprea	"	0 3	1 4	0 3	1 4
New Granada	"	0 7	2 0	0 6	2 0
Pitayo & Maracaibo	"	0 4	1 5	0 3	1 5
Red	"	1 6	7 0	1 6	7 0
East India, crown	"	0 6	2 0	0 6	2 0
red	"	0 4	2 3	0 4	2 3
BUCHU LEAVES	"	0 2	1 0	0 2	1 0
CAMPHOR, China	per cwt.	51 0	52 0	55 0	0 0
Japan	"	53 0	54 0	58 0	0 0
Refin. Eng.	per lb.	0 10½	0 0	0 10½	0 0
Tablets	"	0 11	0 0	0 11	0 0
CANTHARIDES, China	"	2 6	3 0	2 6	3 0
Russian	"	6 6	7 0	6 0	7 0
CAMOMILE FLOWERS	per cwt.	40 0	42 0	40 0	42 0
CASTOREUM	per lb.	26 0	38 0	26 0	38 0
CHIRETTA	"	0 3	0 0	0 3	0 0
DRAGON'S BLOOD, Ip.	per cwt.	70 0	240 0	70 0	240 0
ERGOT OF RYE	per lb.	0 6½	0 10	0 6½	0 10
FRUITS & SEEDS (see also Seeds and Spices)					
Anise, China Star	per cwt.	95 0	100 0	95 0	100 0
Russian	"	20 0	30 0	20 0	30 0
Beans, Tonquin	per lb.	3 0	5 0	3 0	5 0
Cardamoms, Malabar, good	"	5 0	6 6	5 0	6 6
inferior	"	3 0	4 0	3 0	4 0
Aleppy	"	3 0	4 6	3 0	4 6
Madras	"	1 6	3 6	1 6	3 6
Ceylon	"	2 0	2 10	2 0	2 10
Malabar sorts	"	3 6	6 0	3 6	6 0
Cocculus Indicus	per cwt.	11 0	13 0	11 0	13 0
Colocyth, apple	per lb.	0 10	1 3	0 10	1 3
Cubebs	per cwt.	250 0	260 0	270 0	280 0
Cumin	"	30 0	34 0	30 0	34 0
Fenugreek	"	10 0	12 0	10 0	12 0
Juniper Berries	"	8 6	11 0	8 6	11 0
Nux Vomica	"	7 6	10 0	7 6	10 0
Tamarinds, E. India	"	8 0	12 0	8 0	12 0
W. India	"	18 0	20 0	21 0	22 0
Vanilla, large	per lb.	20 0	25 0	20 0	25 0
inferior	"	8 0	18 0	8 0	18 0
FLOWERS—Dalmatian	"	60 0	90 0	60 0	90 0
Caucasian	"	95 0	0 0	95 0	0 0
HONEY, Chili	per cwt.	25 0	50 0	25 0	50 0
Jamaica	"	26 0	38 6	26 0	38 6
ISPECACUHANHA	per lb.	3 0	4 6	3 0	4 6
ISINGLASS, Brazil	"	2 0	4 3	2 0	4 3
Tongue sort	"	1 6	4 10	1 6	4 10
East India	"	1 0	3 11	1 0	3 11
West India	"	2 9	3 13	2 9	3 13
Russ. leaf	"	7 0	10 0	7 0	10 0
Simovia	"	2 2	2 4	2 2	2 4
JALAP, good	"	0 7	0 9	0 7	0 9
infer. and stems	"	0 6	0 7	0 6	0 7
LEMON JUICE	per deg.	0 0	0 0	0 0	0 0
LIME JUICE	per gall.	1 6	0 0	1 6	0 0
LIQUORICE, Spanish	per cwt.	55 0	100 0	55 0	100 0
Liquorice Root	"	12 0	20 0	12 0	20 0
MANNA, flaky	per lb.	4 6	5 0	4 6	5 0
MUSK, Tonquin pod	per oz.	66 0	73 0	66 0	73 0
Graun	"	45 0	80 0	45 0	80 0
Yunan pod	"	29 0	35 0	29 0	35 0
OILS (see also separate list)					
Almond, expressed	per lb.	1 3	1 5	1 3	1 5
Castor, 1st pale	"	0 4	0 0	0 4	0 0
second	"	0 3½	0 3½	0 3½	0 3½
Cod-liver	per gall.	3 0	6 0	3 0	6 0

		Last Month				This Month			
		£	s.	d.		£	s.	d.	
Essential Oils:									
Almond	per lb.	30	0	0	0	30	0	0	0
Anise-seed, star	"	6	7	6	8	6	7	6	8
" German, &c.	"	8	0	13	0	8	0	13	0
Bergamot	"	5	6	6	0	5	6	6	0
Cajeput	per bot.	3	3	0	0	3	3	0	0
Caraway	per lb.	7	6	11	0	7	6	11	0
Cassia	"	3	9	4	0	3	9	4	0
Cinnamon	per oz.	1	9	2	6	1	9	2	6
Cinnamon-leaf	"	0	23	0	0	0	23	0	0
Cltronelle	"	0	14	0	2	0	14	0	2
Clove	per lb.	3	3	3	6	3	3	3	6
Cunifer	"	1	6	2	0	1	6	2	0
Eavender, Exotic	"	6	9	8	6	6	9	8	6
" Mitcham	"	60	0	0	0	60	0	0	0
Lemon	"	4	0	5	6	3	6	5	6
Lemongrass	per oz.	0	17	0	2	0	17	0	2
Neroli	"	7	0	0	0	7	0	0	0
Nutmeg	"	0	8	0	0	0	8	0	0
Orange	per lb.	8	0	10	0	8	0	10	0
Otto of Roses	per oz.	15	0	34	0	15	0	32	0
Patchouli	"	1	4	2	0	1	4	2	0
Peppermint:									
American	per lb.	13	0	0	0	13	0	0	0
H. (G. Hotchkiss)	"	17	0	0	0	18	9	0	0
English	"	27	6	30	0	30	0	32	6
German	"	8	0	14	0	8	0	14	0
Japan	"	13	0	15	6	15	0	17	0
Pepphol crystals	"	35	0	40	0	35	0	40	0
Smyrna	"	2	6	3	9	2	6	3	9
Safra	"	2	6	0	0	2	6	0	0
Sarmit	"	12	0	14	0	12	0	14	0
Syme	"	2	6	0	0	2	6	0	0
See, expressed	per oz.	0	2	0	0	0	2	0	0
S. M. Turkey	per lb.	15	0	17	0	15	0	17	0
" Inferior	"	11	0	13	0	11	0	13	0
S. SIA (bitter wood)	per ton	60	0	80	0	60	0	80	0
R. RAB, China, good									
l fine	per lb.	1	6	3	0	1	6	3	0
Middling to fair	"	1	1	1	3	1	1	1	3
R. TS—Calumba	per cwt.	22	0	30	0	22	0	30	0
ina	"	20	0	0	0	20	0	0	0
s-Cus	"	30	0	21	0	30	0	21	0
laugal	"	21	6	0	0	21	6	0	0
ntian	"	22	6	25	0	22	6	25	0
ris	"	23	0	50	0	23	0	50	0
litory	"	68	0	80	0	68	0	80	0
nk	per lb.	1	6	0	0	1	6	0	0
atany	"	0	5	0	6	0	5	0	6
neka	"	2	4	2	6	2	4	2	6
ake	"	1	6	0	0	1	6	0	0
PROX, Valencia	"	25	0	32	0	26	0	35	0
icante	"	20	0	23	0	20	0	25	0
S. APARILLA, Lima	"	0	6	1	0	0	6	1	0
ayaquil	"	1	2	1	5	1	2	1	5
onduras	"	1	0	1	3	1	0	1	3
maica	"	1	6	1	10	1	6	1	10
S. AFRAS	per cwt.	0	0	0	0	0	0	0	0
S. IMONY, Virgin	per lb.	32	0	35	0	32	0	35	0
ond and ordinary	"	15	0	28	0	15	0	28	0
S. CA, Bombay	"	0	24	0	0	0	24	0	0
nnively	"	0	3	1	2	0	3	1	2
exandria	"	0	9	1	6	0	9	1	6
S. MACETI, refined	"	1	3	0	0	1	3	0	0
merican	"	0	104	0	0	0	104	0	0
S. ILLS	"	0	1	0	24	0	1	0	24
G. IS.									
IONIACI, drop	per cwt.	2	0	2	6	2	0	2	6
MI, fine washed	"	19	0	20	0	19	0	20	0
sorts	"	13	0	17	10	13	0	17	10
IBC, pale picked	"	2	15	3	10	2	15	3	10
sorts, mid. to fine	"	1	10	2	6	1	10	2	6
KEY, pick. gd. to fin.	"	7	0	8	10	8	10	8	10
second & inferior	"	6	10	8	10	7	0	8	10
sorts	"	4	17	5	10	5	10	6	0
AGETIDA, cm. to fin.	"	1	15	3	2/6	1	15	3	2/6
GAMIN, Siam, 1st	"	12	0	39	0	12	0	39	0
2nd	"	5	0	10	0	5	0	10	0
atra	"	5	0	10	0	5	0	10	0
		£	s.	d.		£	s.	d.	
PAL, Manila	"	15	0	67	0	15	0	67	0
Angola, red	"	145	0	152	6	145	0	152	6
MAR, pale	"	75	0	87	6	75	0	87	6
PHORBIUM	"	10	0	15	0	10	0	15	0
LRANIUM	per lb.	0	3	0	10	0	3	0	10
MOGEE, picked pipe	per cwt.	230	0	300	0	230	0	300	0
ALACUM	per lb.	0	6	2	1	0	6	2	1
NO.	per cwt.	28	0	30	0	28	0	30	0
WRIR, sorts	"	30	0	50	0	30	0	50	0
selected	"	115	0	260	0	115	0	260	0
STIC, picked	per lb.	1	6	3	3	1	6	3	3
BRH, good and fine	per cwt.	100	0	150	0	100	0	150	0
ordinary to fair	"	80	0	140	0	80	0	140	0
BANUM, p. drop	"	38	0	45	0	36	0	43	0
amber and yellow	"	29	0	37	0	29	0	37	0
EGAL	"	40	0	45	0	40	0	45	0
ADARAC	"	60	0	112	6	60	0	105	0
ELLAC, Orange	"	63	0	82	0	58	0	77	0
LIVER	"	61	0	64	0	56	0	58	0
US	"	25	0	0	0	25	0	0	0
AGACANTH, leaf	"	120	0	180	0	120	0	180	0
in sorts	"	20	0	180	0	20	0	180	0
		£	s.	d.		£	s.	d.	
S. AL pale	per tun	27	10	23	10	27	10	23	10

Oils:—(cont.)

SEAL, yellow to tinged..	per tun	24	0	27	0	24	0	27	0
brown	"	23	10	24	0	23	10	24	0
SPERM	"	55	0	56	0	58	0	60	0
COD	"	32	0	35	0	32	0	35	0
WHALE, South Sea, pale	"	23	0	25	0	23	0	25	0
yellow	"	22	0	23	0	22	0	23	0
brown	"	20	0	21	0	20	0	21	0
Sardine	"	25	0	27	0	25	0	27	0
OLIVE, Seville	per ton	41	0	42	0	40	0	41	0
Gloja	"	36	0	37	0	36	0	37	0
Levant	"	41	0	41	10	41	0	41	10
Mogador	"	35	10	36	0	35	10	36	0
Spanish	"	41	0	42	0	40	0	40	10
Sicily	"	41	0	0	0	40	0	0	0
COCOANUT, Cochín	"	32	10	0	0	32	10	0	0
Ceylon	"	29	0	30	0	29	0	30	0
Mauritius	"	0	0	0	0	0	0	0	0
PALM, fine	"	32	0	0	0	30	10	31	0
LINSEED	"	20	5	20	12	21	0	21	5
RAPSEED, English, pale	"	28	0	0	0	26	0	23	5
brown	"	26	0	0	0	24	0	0	0
COTTONSEED	"	25	0	26	0	23	10	25	10
LARD	"	41	0	43	0	41	0	43	0
TALLOW	"	28	10	45	0	28	10	45	0
		£	s.	d.		£	s.	d.	
TURPENTINE, American	per cwt.	23	0	23	3	21	9	22	0
PETROLEUM, refined	per gall.	0	6	1/2	0	0	7	1/2	0
Spirit	"	0	7	0	7	0	7	0	7

SEEDS.

CANARY	per qr.	48	0	60	0	48	0	60	0
CARAWAY, English	per cwt.	0	0	0	0	0	0	0	0
German, &c.	"	18	0	26	0	30	0	52	0
CORIANDE	"	10	0	21	0	10	0	21	0
HEMP	per qr.	38	0	0	0	38	0	0	0
LINSEED, English	"	0	0	0	0	0	0	0	0
Black Sea & Azof	"	40	0	0	0	40	0	0	0
Calcutta	"	42	6	0	0	42	6	0	0
Bombay	"	45	0	0	0	45	0	0	0
St. Petersburg	"	35	0	38	0	35	0	38	0
MUSTARD, brown	per bush.	10	0	15	0	10	0	15	0
white	"	7	6	9	6	7	6	9	6
POPPY, East India	per qr.	29	0	0	0	39	0	0	0

SPICES.

CASSIA LIGNEA	per cwt.	27	0	0	0	26	0	26	6
Vera	"	18	0	23	0	18	0	23	0
Buds	"	34	0	0	0	34	0	0	0
CINNAMON, Ceylon:									
1st quality	per lb.	0	9	2	1	0	9	2	1
2nd ditto	"	0	6	1	9	0	6	1	9
3rd ditto	"	0	5	1	2	0	5	1	2
Tellicherry	"	0	0	0	0	0	0	0	0
Chips	"	0	24	0	5	0	24	0	5
CLOVES, Penang	"	1	3	1	6	1	3	1	6
Amboyna	"	0	8	0	9	0	8	0	9
Zanzibar	"	0	5	0	5	0	6	0	6
GINGER, Jam., fine	per cwt.	80	0	0	0	75	0	0	0
Ord. to good	"	50	0	70	0	45	0	65	0
African	"	40	0	0	0	40	0	0	0
Bengal	"	30	0	35	0	30	0	35	0
Malabar	"	0	0	0	0	0	0	0	0
Cochin	"	40	0	90	0	35	0	87	6
PEPPER, Black, Malabar	per lb.	0	8	2	0	0	8	2	0
Singapore	"	0	8	0	0	0	7	0	8
White	"	0	10	0	10	0	10	0	10
Cayenne	"	0	9	1	2	0	9	1	2
MACI, 1st quality	"	1	4	2	0	1	4	2	0
2nd and inferior	"	1	1	1	2	1	1	1	2
NUTMEGS, 78 to 60 to lb.	"	2	6	3	5	2	6	3	5
90 80	"	2	3	2	5	2	3	2	5
132 95	"	1	7	2	3	1	7	2	3
PIMENTA	"	0	1	3	0	0	1	3	0



We must decline to answer queries sent to us unless accompanied by name and address. This will explain to some correspondents the reason why their questions are not attended to.

544. *Sub Umbra Floresco*.—**Castor-oil Pills**.—Various aperient pills are sold under this title. We understand that pil. rhei. co. is frequently selected. Some chemists, we believe, sell the pil. calomel. co. for castor-oil pills, because it is made up with that ingredient as the excipient. **Pill Coating**.—We cannot add to the directions given under this title in last Diary. Do not use sugar coating for permanganate of potash, phosphorus, or nitrate of silver.

569. *H. G. H.*—**Pennyroyal and Steel Pills**.—Sulphate of iron (dried), 1 oz.; extract of chamomile, $\frac{1}{2}$ oz.; oil of pennyroyal, 1 drachm; syrup, q.s. Make into 4-grain pills. Dose, one or two daily.

352. *Show-card* asks "how the beautiful glass-like enamel is given to certain show-cards." He knows it is made of gelatine and glycerine, but would like to hear proportions and methods of application.

Will some one tell *A. E. I.* how to make **Liq. Rosæ Dulc.**, used both for flavouring and colouring mixtures, and the colour of which is unaffected by either acids or alkalis?—For black ink for indiarubber prescription-stamp use printing-ink thinned with linseed oil, or see formula on page 337 of our last volume (July, 1884).

6633. *W. H. S.*—Sulphur fume, *i.e.*, sulphur-dioxide gas, is more than twice as heavy as common air. But, at the same time, there is no need to raise a pan of burning sulphur above the floor of a room to be fumigated. The wonderful law of the diffusion of gases always ensures the uniform mixture of different gases present in the same room, even when the heavier gas is at the bottom. The currents produced by the heat of the burning sulphur will help to mix the gases more quickly.

Sm.—In your last number (page 66) you gave recipe for making a **white cement** which has proved an unqualified failure in my hands; perhaps you could inform me of my error. I placed the $12\frac{1}{2}$ drachms of caoutchouc in 10 drachms of meth. chloroform—the solution was not easily effected nor wholly effected, so I added 2 drachms more of chloroform; I then put in $2\frac{1}{2}$ drachms of gum mastich, and left it to one side. To-day (three days after placing) the mass is in an earthy condition, with a yellow liquid about it. Perhaps it may look better after ten days.

Yours, with thanks for last reply,

March 2.

H. C. B.

[Perhaps H. C. B. will report his final results, as he has not given the directions full trial as yet. Undoubtedly the most important point is to get pure non-vulcanised caoutchouc. Many specimens of black vulcanised caoutchouc look much like the native article; is it possible that there has been an oversight in this particular?]

545. *Alpha*.—Messrs. S. Percheron & Co., 21 Britannia Street, City Road, N., make a specialty of machinery for making cocoa and chocolate. Full particulars of the qualifications needed to secure registration as a dentist were given in our September issue. There are several distinct branches of knowledge required by dentists—as dental anatomy, dental surgery, mechanical dentistry, &c.; there is no single elementary work dealing with all these subjects. Tomes's "Manual," published by Churchill, is, perhaps, the most comprehensive.

6510. *W. P.*—The following formula for **Dr. Bow's Liniment** was given in THE CHEMISTS' AND DRUGGISTS' Diary, 1881, p. 90:—

Opium	3j.
Sapo hispan. .. .	3ss.
Lin. camph. co. ..	3viii.

Digest for seven days.

"The above is what is commonly sold as Bow's liniment, but anyone examining the stamped liniment will observe a difference in the colour from the above, which is probably accounted for by the addition to the patent of a little extract of belladonna."

This can be sold, without a patent-medicine stamp, as Dr. Bow's liniment, prepared by Blank, Chemist, Erewton, but not as "Dr. Bow's liniment for sprains, bruises, contusions, &c.," nor as "prepared specially or solely by Blank," nor must it be wrapped in a bill recommending it for any diseases, nor advertised in any almanack or publication whatever in the same strain.

Green Oil.—Properly speaking, this should be made from *hæm. origanum*, rue, sea wormwood, and elder-leaves, of each $2\frac{1}{2}$ oz.; oil, 1 quart; boil gently till the leaves are crisp, press out the oil, and heat till it turns green. But oil of elder leaves is now usually sold, and made generally as follows:—Elder-leaves, 1 cwt.; linseed oil, 3 ev. made as above; rape oil might, perhaps, be substituted. Cooley's oil is generally coloured with verdigris, $\frac{1}{2}$ lb. to the cwt., just before putting it into the casks and while still warm; as without great skill and a large quantity of leaves the deep-green colour so much admired by the ignorant cannot be given to it. The oil is got from the leaves by allowing them to drain in the pan or boiler (with a cock at the bottom) well heated. To colour the oil with verdigris alone would, we think, be unjustifiable.

Full details as to pill-coatings of all kinds are given in THE CHEMISTS' AND DRUGGISTS' Diary for the current year.

J. E. H. wishes for a good recipe for a general liver mixture.

515. *J. F. K.* will find a formula for calf-meal or milk substitute on page 250 of our issue for May last. For a horse and cattle spice the following is recommended by Cooley:—Turmeric and cumin-seed, of each 2 lbs.

6524. *H.B.*—**Leeming's Essence**.—The two formulæ subjoined have been previously published in our journal:—

I.	
Cantharides	8 oz.
Camphor	2 "
Euphorbium	8 "
Oil of origanum	1 "
Castile soap	3 "
Spirits of wine	6 pints

Mix, digest for fourteen days and filter off.

II.	
Pulv. cantharides	8 oz.
Corrosive sublimate ..	2 "
Methylated spirit	2 pints

Macerate for twelve or fourteen days, filter and pour enough methylated spirit on the filter to make the filtrate measure two pints.

Diapente properly consists of five ingredients, as in the Edinb. Pharmacopœia, 1744, where equal parts of bay-berries, birthwort, gillyflower, and myrrh are ordered. Fewer ingredients are often ordered. Thus—(1) gentian, 6 lbs.; bay-berries, 1 lb.; sometimes with 1 lb. mustard; (2) bay-berries, gentian, mustard, and turmeric, equal parts; (3) gentian, linseed, bay-berries, and bole, equal parts; copaiba, one part; (4) gentian, linseed, and bay-berries, equal parts; bole, enough colour. Used as a tonic in veterinary practice.

51. *J. B. H.*—**White Oils**.—The formula we now give has been repeated many times in THE CHEMIST AND DRUGGIST. It is not a scientific mixture, but it is an excellent one, and we would suggest that all readers should take special note of it, so that we may not need to repeat it within the next twelvemonth or so:—Eggs, 12; soft soap, 5 oz.; turpentine, 12 oz.; strong solution of ammonia, 6 oz.; strong acetic acid, 8; camphor, 5 oz.; methylated spirit, 10 oz.; eucalyptus oil, 2 oz.; water, 5 pints. Beat up eggs and soft soap in a large mortar, and gradually add in half the water. Then add, with constant stirring, the camphor dissolved in the spirit, then the eucalyptus oil in the turpentine, next, the solution of ammonia, and, lastly, the acetic acid diluted with the rest of the water.

25. *Sub Umbra Floresco*.—The heavier paraffins are now generally recognised as the best lubricating oils, and we think your best plan would be to apply to some of the importers of these articles. They are the fractions boiling at higher temperatures obtained in the distillation of the illuminating mineral oils.

354. *Pharmacist*.—**Capsicum Ointment**.—Dr. Turnbull's formula was as follows:—Evaporate concentrated tincture of capsicum (4 oz., 12 oz., percolate) to the consistency of a jelly, and mix 3iij. of the extract with 3vj. of lard. For external use as a stimulant. It is of importance that the capsicum be free from salt, otherwise it will vesicicate (Bensley, Martindale and Westcott give the following formula for **Linimentum Capsici** as better than Turnbull's concentrated tincture; it would probably be preferred to the ointment as well:—Capsicum fruit in con. powder, 1½ oz.; rectified spirit, q.s.; percolate to obtain 2½ oz.; add oil of ac., 9½ drachms, and oil of lavender 1 drachm.

Chemists' Aërated and Mineral Waters Association (Limited).

The Chemist and Druggist—

In reply to the letter signed "Chemist," which appeared in your issue, as a shareholder of the above Association, and large purchaser of mineral waters, allow me to state that if members were forbidden to sell to merchants, hotels, or any one they chose, I think I may say for my brother-chemists who are members, and doing a good trade in mineral waters, would be compelled to leave the Association and purchase elsewhere.

I am always too pleased to supply wholesale where I can. If we refused to do so, it is not requisite to print these, as the misapprehension has been sufficiently cleared up.]

J. H. (4/67.)

Auxiliary Trades.

The Chemist and Druggist—

Has the Pharmacy Act done any good to the drug trade? is a question frequently asked, and nearly as often answered in the negative. I have protected the public; but has the public given anything in return? Many, very many years ago, we were told that the Pharmacy Act would deviate the trade almost, if not quite, to a profession, and that the outside of pharmacy was not to be tolerated in our shops. Most old members of the trade will remember that chemist and grocer was an unusual combination in the palmy days of their apprenticeship, and I am inclined to think that this was not an unmixed evil. There is a determination amongst grocers to get as much of our trade as they can, and they are not slow to avail themselves of the opportunity of buying at grocers many little things which make up our trade, as they can have them sent to their homes with the groceries, which they prefer to do, rather than allow the chemist to send a small parcel, however willing or anxious he may be to do so. Is it desirable that we should continue ruining our trade for the sake of protecting a public which does not appreciate our protection? We expected to have gained not only the confidence of the medical profession, but a greater share of their patronage, and with this we hoped many who could have made a good prescribing trade have discontinued it, hoping to cultivate more friendly relations with the doctors. Have their hopes been realised? Rather, do not they find the doctor in many cases recommends his patients to get some proprietary syrup or preparation at the grocers, a course which may to some extent save the grocer's stocks of drugs, but which, I think, will bring its own day of reckoning with the medical profession. In the first place their patients will come again and again the same remedy without further consultation; and, further, the public will gradually become impressed with the idea that the medical men approve of patented nostrums as a rule. There is another great danger ahead for chemists, and that is, as chemists' accounts fall in with wholesale houses, there will be great temptation for the latter to keep up their returns by calling on grocers, the smaller houses first, and the larger ones will say they are compelled to follow. The question is, are we going to allow grocers quietly to absorb our trade, or shall we resist to the practice of olden times and keep the heavier articles of the trade? I know that the profits in the grocery trade are very different to those of the palmy days I speak of, and I daresay it is this which induces them to add to their trade what seems a more profitable branch of business. I ask, can nothing be done to prevent it? It is vain to look to the Council of the Pharmaceutical Society for help; but I think the committee of the Trade Association might get much useful information from the heads of wholesale firms if they would take the subject in hand.

Yours truly,

M. P. S.

Pharmaceutical Society of Australasia.

The Chemist and Druggist—

It has come to my knowledge lately that, in several instances, new laws here and elsewhere have been labouring under the delusion that the Pharmaceutical Society of Australasia, which is a Victorian society, has jurisdiction and influence outside the Colony of Victoria.

It will, therefore, save much trouble, and, perhaps, hardship, if it is thoroughly understood that the above-named Society (which is simply a Victorian society) has no jurisdiction outside that colony whatever, and it is unfortunate that the term "Australasia" was taken, as it is incorrect, will lead to much unnecessary trouble, I fear.

The certificates of the Victorian Board of Pharmacy and of the above Society do not entitle the holder to practise his profession as a pharmacist or chemist, for instance, in New South Wales or New Zealand.

I am, &c.,

M. P. S. (28/254.)

Sydney, N.S.W., January 7.

4/35. *G. B. Pil. Rhei Co.*—Your experience is contrary to our own. The pills do not "pit" if made with the proper quantity of treacle, and if, after rolling out, they are exposed for a few days on the tray in a dry place. Ten grains of tragacanth per oz. might prevent the "pitting." Send us a specimen of the boxes you want.

31. *William Ledger.*—**B.P. Dilute Acids.**—A constant quantity of water cannot be insured, hence the Pharmacopœia direction to wait until the mixture is cold before making up to the required volume. Could you not make a small experiment to satisfy yourself?

Carbonate of Iron for Neuralgia.—*Ferri oxidum hydratum*, B.P., is generally given, but the correct article is the *ferri oxidum rubrum hydratum*, Ed. Phar. This is made from sulphate of iron and carbonate of soda, and has not the same composition as the B.P. oxide. Some wholesale houses supply it when it is specially asked for.

257. *T. M. D.*—**Barometer.**—If the tube is not fixed to a board, fix it temporarily to one a little longer than the tube. Put your mercury into A, close with the thumb or with a cork, and reverse quickly, so as to get a little mercury round the bend; then tap the top of the board carefully on the ground, in order to get a little mercury down B. Repeat the operation until the tube is full. Finally, you must compare the level with a standard or aneroid barometer, and make a correction if necessary. If there is too much or too little mercury in A your barometer will read either high or low, as the case may be, and you will require to remove or add accordingly. Do so with a pipette, carefully.

174. *Sodæ Acetas.*—**Non-corrosive Chemical Heat.**—"The other day a customer came into the shop and asked me if I could supply him with chemicals for the above. He told me that the London and North-Western Railway Company were using it in their foot-warmers, and that by simply shaking the foot-warmer a heat greater than that of boiling water was obtained. He says that it does not affect the metal at all, and that the chemicals will last for some time (i.e. for three or four weeks), and will always develop heat on shaking." Sodæ acetat is the chemical, as your pseudonym hints, but it has been somewhat "embroidered and decorated" in the account you have received. The foot-warmers are filled with sodium acetate crystals, and are then placed in a stove and heated to 100° C. The salt dissolves in its own water of crystallisation, and on cooling the saturation point is reached, and if then shaken a considerable amount of heat would be developed by the sudden crystallisation of the salt. It will probably last for all time if a little water is occasionally added. See THE CHEMIST AND DRUGGIST for 1880, p. 172.

1/12. *A. G. S. C.*—**Non-conducting Composition for Covering Boilers, Hot-water Pipes, &c.**—The best, we believe, is an asbestos composition. You can get particulars concerning it from Bell's Asbestos Works, 118 Southwark Street, S.E.

6/41. *Subscriber.*—Hunter's "Mechanical Dentistry," published by Crosby Lockwood, may suit you. Anyone is free to perform any dental operation, provided the title of dentist is not assumed. But if credit is given, and the debtor refuses to pay, none but a registered dentist can recover by law. Anyone may supply artificial teeth, and advertise his readiness to do so under the same limitations. We are not quite sure if the time has expired during which registration could be obtained by passing certain examinations *sine curricula*. As regards this, inquiry should be made at the Office of the General Medical Council, Oxford Street. For particulars as to the examination see THE CHEMIST AND DRUGGIST for September last.

6/24. *F. W. D.* writes:—"How can I prevent a perfume from staining the handkerchief? It contains rad. iris, gij.; vanilla, 5ij to 50 oz. of rectified spirit and French essence. I allow it to macerate till it is all sold." [Have you ascertained if it is the tincture or the French essence that stains? We suspect it is the latter, and in that case it will be difficult to improve. It would be advisable to communicate with the dealer who supplies you and choose your essence with regard to this peculiarity. If the tincture is in fault, why not substitute vanilline for the vanilla? Probably it would be better to macerate the materials for a reasonable time, say a fortnight, then bottle the product in smaller bottles, which could be left to mature without exposure to the air for some time before there is need to open them for retail. You cannot be too particular in the selection of the spirit.]

Legal Queries.

2/43. **Validity of a Patent.**—A, B, C wishes to know what constitutes an infringement of a patented article. For instance, would a preparation under another name containing net all the same ingredients (although it might contain one of the same) and intended to produce the

same effect as a patented article be an infringement of that patent; or does the taking out of letters patent prohibit any other preparation being sold to produce the same effect?

This is a very difficult question—one to which we can give no very positive answer. We believe the general principle is that a patent can cover particular means to secure a given end, not all means that can be used to the same end. The question that arises in your particular case is, whether the original patent is still in force—*i.e.*, have all the fees been paid to date? then, is it valid, or does it claim too much, as we have sometimes thought it does? To settle this would require an action at law, which is much too costly. On the other hand, other preparations are in the market which seem to be infringements of the patent strictly interpreted. But these matters are so complex that we must decline to take any responsibility, and the best advice we can give is that you should get the patent yourself, and then consult personally an experienced patent agent.

The Law of Contract.

SIR,—Are the printed statements contained in counter-bills concerning patent medicines legal contracts? The enclosed bill recommends a patent medicine which it states cures asthma and many other diseases.

Now if I circulate such bills, and a customer buys the article, and, after using it, finds his disease is not cured, can he claim damages from me for breach of contract.

Yours truly,

H. K. I. (4/68.)

[Certainly he can *claim* damages and can sue you through every court in the land for them. But we do not at all think he would *get* anything. The Bill you enclose makes no contract to cure any particular case of asthma; for anything we know it may be perfectly true and provable that the preparation has cured asthma.—Ed. C. & D.]

5/24. *Norman*.—Patent medicine stamps and licences are not necessary for veterinary preparations.

2/15. *Xenophon*.—By the Act of 1830 beer was defined as including ale, porter, spruce-beer, black beer, and any other description of beer, so that a licence must be taken out for retailing it.

Dutch Drops.

To the Chemist and Druggist—

SIR,—As some uncertainty appears to exist in the trade respecting the medicine known as "Dutch Drops," as to whether it is liable to stamp-duty or not, and wishing to clear the matter up to my satisfaction, I wrote about it to the authorities at Somerset House, and received from them the following reply:—

"Sir,—In reply to your letter of the 19th instant, I am directed by the Board of Inland Revenue to inform you that 'Dutch Drops' are expressly charged with stamp-duty by the Act 52 Geo. III., c. 150, and must not be sold unstamped in the United Kingdom by any person, either to chemists for retailing or otherwise.

"I am, sir, your obedient servant,

(Signed)

"W. W. COUSINS."

Thinking that others might like to have their doubts removed is my reason for writing on the subject.

I remain, &c.,

INQUIRER, (4/4.)

Corn-plasters.

We have had some more communications respecting the necessity of stamping boxes of corn-plasters. The Board requires that these shall be stamped if an exclusive right in the manufacture be claimed. Thus, if labelled "X's Corn-plasters," the box must be stamped. So, too, a stamp would be necessary if, by the label or by other publication, the plasters are recommended for the cure or relief of corns, &c. But a box labelled merely "Corn-plasters," directions for application, and name and address of vendor or maker, would not require a stamp.

Prosecuting Pharmaceutical Offenders.

To the Chemist and Druggist—

SIR,—Your February number contained a letter from the secretary of the Chemists' and Druggists' Trade Association, stating that if a clear case of the infringement of the Pharmacy Act, either at Birmingham or elsewhere, with which the Association has power to deal were brought before them, your correspondent might rest assured that the same would have prompt attention. I should like to say that I received from a customer a label with the words "Red Precipitate—Poison," and the name and address of an unregistered chemist. I met a neighbouring chemist and gave him the label to look at, and, at his suggestion, I sent it along with a letter first to the secretary of the Trade Association at Birmingham (Mr. Haydon), and had a reply to the effect that they were coming into this

district, and would prosecute offenders of the Pharmacy Act. I have seen nor heard from Mr. Haydon since, save and except an application for my yearly subscription some months afterwards, which I declined, and from which time I ceased to be a member of the Trade Association.

I enclose my card, which on application can be given to Mr. Haydon, is only fair to say I sent the label (having asked for its return by perusal) to the secretary of the Pharmaceutical Society, and received a vague reply only.

LANCASTRIAN, (2.)

"Rough on Rats."

E. S. Wells, the proprietor of "Rough on Rats" (in view, we suppose, of steps which, we understand, have been taken by the Pharmacy Council) asks us to state that "this article is now prepared with a proportion of colouring matter, making it much darker, to conform to the law governing the sale of such articles in Great Britain, and chemists and druggists can sell the same by conforming to the law governing the sale of poisons."

[This is true, but it needs to be made a little clearer. "Rough on Rats" is said to be mainly arsenic. As such it comes both under the Pharmacy Act and the Sale of Poisons Act. It may only be sold by registered chemists; it must be labelled with the word "arsenic," the word "poison," and the name and address of the seller; and every sale must be registered in the Arsenic-book with the particulars there required.—Ed. C. & D.]

A Wail.

(Suggested by some recent letters to THE CHEMIST AND DRUGGIST on the subject of "Cutting Prices.")

I'm a chemist in the country, and really do not know how to get a living nowadays, prices are so low. With Cockle's pills at ninepence, Mrs. Allen's three-and-six. A dozen pills for twopenny, I'm really in a fix. But I'll not reduce my prices—I hate such caddish tricks—I still want twenty shillings for what's sold at two-and-six. Now what I say is simply this, that men who dare to sell their goods at prices fair and just deserve to go to—well—We may not be too hard on them, but if I had my will They'd go to gentle Colney Hatch or else sweet Pentonville. But lo! some gentle letters come, some prophets now draw nigh Who say we yet shall fortunes make by keeping prices high. They say we better business do than thirty years ago: That's rather hard to swallow, sir, but sure he ought to know. There's Mr. Thoms lives in our town, who won't believe in "cut." And says we should be business men, but that is an insult. Thoms advertises far and near, he's bought our fine Town Hall, And bills his drugs and patents on every blessed wall. Last week he bought our monument, the only one we've got, And now the name of Thoms is seen all over that famed spot. True, he lives in princely style, drives to business with a "pair"; But what a conscience he must have! it really is not fair For him to live in Nabob style while we can scarce exist—To bask in Fortune's brightest sun, we in perennial mist. He does it all by "cutting," sir, by "puffing," and by push, But for such means by such foul means I would not give a rush. And I'll not reduce my prices—I hate such caddish tricks—I can't get twenty shillings, and I won't take two-and-six.

INSTANT.

Provincial Names of Drugs and Medicines.

To the Chemist and Druggist—

SIR,—Below please find my quota to list of "Provincial Names of Drugs and Medicines." [After giving a few that are universally known, the writer adds:—]

The following are not so common:—

Felon wood	Dulcamara
Bitter-sweet	"
Ladies' blus h	Carmine
Quietness	Godfrey's cordial
Tincture Ben-zoin	Tinct. benzoin co.
Violet root	Rad. iridis

"Bob Roberts" I have not heard of, but there is a preparation, I believe in considerable demand in some parts of Lancashire for coughs, known as "All Fours," which consists of oil of aniseed, oil of peppermint, laudanum and pargorie, 1d. each.

Yours,

King's Cross, Halifax, February 12.

J. SWIN.

To the Chemist and Druggist—

SIR,—I have a manuscript book, upwards of 100 years' old, and a recipe for "oil of swallows" is in it; it may amuse, but certainly not instruct. There are many more startling formulae, of which I send a specimen, or two.

Yours, &c.,

Egham, February 25.

W. B. (234 5.)

OYLE OF SWALLOWS.

b. May butter unwashed, one handful rosemary tops, as much Cotton, as much Strawberry strings grown in wood, 16 young out of the nest feathered, pound them alive with these herbs, ye butter little by little, pound it very small, put in an earthen red very close, digg a hole in ye ground, bury it four days, take it filit 10 boils or better, stirring it, then straine it with a new unvas. [See another formula further on. May butter has nothing a butter from milk or any other animal or vegetable fat. It is called *Nostoc*.]

FOR A BRUISE.

horse dung, or new cow dung, fry it in hogs lard till looks gr y it.

CURE FOR AGUE.

heart of an hare dry it in an oven beat it to powder and give it drink one hour before ye fit comes.

EXCELLENT FOR AN AGUE.

the biggest toad as you can gett and hang it up by one legg in ye the beat himself to death yen take him pound him gutts and make powder of him and wear him about your neck in a silk

FOR CONVULSION FITTS.

penarth of arsfodita and sow it in a silk bagg about ye neck are skin lett it hang on till it wears away and decay and you your cure perfect having never a fit afterwards.

Chemist and Druggist—

Julpeper, in his "London Dispensatory," 1653, page 217, gives the how for "oil of Exeter."

33. lington Street, Ramsgate, Feb. 16.

Yours truly,

C. J. Fox.

OYL OF EXETER.

Tid of the Leaves of Wormwood, Centaury the less, Eupatorium, Fennel so Bays, Marjoram, Balm, Nep, Pennyroyal, Savin, Sage, Time, of each southernwood, Bettony, Champepits, Lavender, of each 6 oz.; Rose- y b.; the flowers of Chamomel, Broom, white Lillies, Elders, the seeds ufn and Fenugreek, the roots of Hellebore, black and white, the k Ash and Lemmon, of each 4 oz.; Euphorbium, Mustard, Castoreum, lity of Spain, of each an oz.; Oyl, 16 lb.; Wine, 3 lb.; the herb, seeds, and Euphorbium being bruised, the Roots, Bark and Castoreum ty, of them infused twelve hours in the wine and oyl, in a warm bath, onyled with a gentle fire, to the consumption of the Wine and olve, strain the Oil and keep it.

My people by catching bruises when they are young, come to feel it hey are old; others by catching cold, catch a lameness in their also both of which I commend this sovereign oyl to bath their grieved arms with.

[It carries oil of exeter back a century, but we still need the original rria and some explanation of the name. It shows that Quincy and l balm, nep, and pennyroyal, white lilies, elders; explains broom to ne the flowers, and adds ash bark; champepits in Culpeper is ground un Quincy, or *Trucium champepits*. A formula is sent us from al's "Devon Medicum," 1677, which differs only in ordering mandlin nge of eupatorium. Can any reader take this formula beyond 1653? -C. D.].

To Chemist and Druggist—

wool gives the following for "Exeter oil":—

Green oil of elder	.. .. .	16 lbs.
Euphorbium	.. .. .	1 oz.
Mustard	.. .. .	1 oz.
Castor	.. .. .	1 oz.
Pyrethrum	.. .. .	1 oz.

original had thirty-one ingredients, which were to be infused in and oil, but it is now seldom made.

oil of elder is usually substituted for it, some add a small quantity of turpentine.

gan.

B. W. PRICE.

To Chemist and Druggist—

Agreeably to your published request, I forward the appended list of synonyms, with remarks which are the result of a half-hour's imitation (or portmanteau) for which are not very frequent), but will ac-

upon your suggestion and note down the synonyms as they occur during the next few weeks, and thus amplify the list:—

Citron ointment	.. .. .	Ung. hydr. nit. dil.
Blue butter	.. .. .	.. .. .
Uction	.. .. .	Ung. hydrarg. mit. co.
Troopers' ointment	.. .. .	.. .. .
No name ointment	.. .. .	Ung. hydr. mit. dil.
Oil of brick	.. .. .	Oil linseed, 6 oz.; oil turp., 3 oz.; oil thyme, 1 oz.
Oil of spike	.. .. .	.. .. .

This formula, I believe, has been used for upwards of a century, in a retail establishment in this town, which has been handed down several generations, and where I served as an assistant at one time.

The old gentleman who was the last to retire from the above business claims to be the originator of the synonym "Ointment of No Name" (he is about eighty years of age), and declares that ung. hydrarg. ammoniata, so widely sold in the district under the "name" (?) was sold as an imitation of his originally. He once gave me a version of how the absurd title originated.

[We should be glad to hear the version.]

Sal polyeres (properly "polychrest")	.. .. .	Potass. sulph.
Salts of wormwood	.. .. .	.. .. .
Salts of tartar	.. .. .	Potass. carb.
Japan earth	.. .. .	Gum catechu (used for excessive menstrual discharges)
Mindemus spirit	.. .. .	Liq. am. acct. conc.
Egyptiacum	.. .. .	Mellis eupri acet.
Black drops	.. .. .	.. .. .
Dutch drops	.. .. .	Balsam sulphur
Dias. cordial, or mithridate. [Is mithridate still asked for to any extent?]	.. .. .	A compound of aromatic powders, treacle, with a small quantity of opium

(Mine is an old recipe.)

Balsam of life	.. .. .	.. .. .
Tinct. of life	.. .. .	Tincture guaiaci
		[This is unusual; for tr. benz. co. is generally sold]
Balsam locutelle	.. .. .	I have it in stock, but do not know what it is
Balsanium	.. .. .	Friar's balsam
Lin. myrrh	.. .. .	.. .. .
Black myrrh	.. .. .	Tr. myrrh co.
Paregoric	.. .. .	.. .. .
Oil of swallows [see in this issue; really made from swallows]	.. .. .	What was the origin of these synonyms?
Hiera piera	.. .. .	.. .. .
Godfrey's	.. .. .	Godfrey's or auodyne cordials, opium, treacle, and aromatic oils

Worm seed Sem. hyosey.

So called, I suppose, from the shape of the parched cotyledons. Our patrons put them on a hot penny or plate, and hold the mouth over them for toothache: the heat disintegrates the seed and scatters it, and the curled up cotyledons left after the operation they religiously believe to be "worms" extracted from the carious tooth. A friend of mine actually saw this farce enacted on the platform of the principal public hall in the town, within a twelvemonth since, by a popular travelling "professor" of phrenology, quackery, &c. [This is a very old theory. The "Grete Herball," published 1526, was the first English work announcing it, and is itself a translation of the "Ortus Sanitatis"]

Roeche alum

I presume iron alum was originally used under this name, but I fancy what is sold nowadays is very rarely anything but ammoniac alum coloured with red ochre or bole. What degeneracy! [No; the alumen of the Romans was natural green vitriol from mines. When our alum became known it was considered a species of the ancient; and as it was purer and more proper to be used on most occasions, the name of "alum" was soon appropriated to it alone. The ancient alum, i.e., green vitriol, maintained a preference in medicine and in dyeing black. Historians say that Europeans first learnt the art of making alum at Rocca, in Syria, which is probably Edessa, which Niebuhr says is called "Roccha." It appears that the new alum was at first distinguished from the ancient vitriol by the denomination of "rocca," from which the French have made *alun de roche* and some of the Germans *rot-alum* ("Valentini Historia Simplicium" and other works). Some think the name is derived from *rocca*, which in Greek signifies a rock, because this salt is by boiling obtained from a stone; and these translate the word *alumen rupeum*, from which the French name is formed (Jul. Ces. Scaligeri Exot. Exercitat. Franc. 1612, p. 325). Some are of opinion that alum obtained from alum-stone has been so called to distinguish it from that procured from schists, which is generally mixed with more iron than the former, and others maintain that

alum acquired the name of "rocca" from the alum rocks in the neighbourhood of Tofia. Beckmann is inclined to adopt the opinion of Leibnitz that *alumen rocca* was that kind first procured from Rocca, in Syria, and that this name was afterwards given to every good species of alum, as at his time (1780-1800) the purest was called "Roman alum." See Beckmann's "History of Inventions," vol. i. p. 180-198, Bohn's edition, for full information as to its early history.]

Nottingham. Yours, &c., MIDLAND CHEMIST. (254, 15.)

To the Chemist and Druggist—

SIR,—The following are the formulae you ask for:—

DIAGRIDYUM.

Polv. scammon. lb. j.
Succ. eydoniæ lb. ij.

Digest for twelve hours, and evaporate to dryness.

TINCT. VITÆ.

Ol. origani 3vj.
Sp. lavand. co. 3ij.
S. V. R. 3xii.

M.

Or, an older form, known also as "Whitworth's Drops":—

Ol. origani 3vj.
Ol. rosmarin. 3ij.
Sp. lavand. co. 3iss.
S. V. R. 3vj.

M.

[Whence are these formulae taken?]

I have extracted from a very old edition of the Paris Codex a formula for oil of earthworms, which differs slightly from that given by "A. C. S." In it equal parts of live earthworms, olive oil, and good white wine are ordered to be simmered together, pressed, and strained. The oil is said to be an excellent discutient. Pharmacy would indeed seem, as your correspondent says, to have been scarcely so elegant in olden times as now, but some old prescriptions were simpler than the above, if not more scientific. Here is an example from an old book of farriery:—

FOR COLIC IN SHEEP.

"If a sheep have ye colic, lay him down gently on his back, give him three kicks in ye guts, set him on his legs again, and he will do very well."

I regret that, the book being lost, I can give you neither its name nor date, but the prescription is authentic.

I am, &c.,

Epworth, February 18. C. C. BELL.

SIR,—I send you a few provincial names of drugs, &c., and hope they will be of some interest:—

Daffy's elixir	.. .. .	Tinct. sennæ
Ean de luce	.. .. .	Tinct. ammon. co. P. L.
Yellow basilicon	.. .. .	Ung. resinæ
Carron oil	.. .. .	Liq. calc. c. ol. lini.
Crumble ointment	.. .. .	Ung. cretæ
Toothache seed	.. .. .	Sem. hyosey.
Violet root	.. .. .	Rad. iridis
Flake gum	.. .. .	Gum tragacanth
Fiddle gum	.. .. .	Gum tragacanth

(Known to shoemakers only by this name; used by them in making "fiddle-shaped waists of boots.")

Pearl ointment	.. .. .	Ung. zinei
Black drop	.. .. .	Liq. opii sed. (Battley)
Steel drops	.. .. .	Tinct. ferri perchlor.
Red blister	.. .. .	Ung. hydr. iod. rub. (1 to 7), for veterinary purposes
French flies	.. .. .	Cantharides
Spanish flies	.. .. .	Cantharides
Plummer's pills	.. .. .	Pil. hydr. subchlor. co.
Early risers	.. .. .	Cathartic pills
Working pills	.. .. .	Cathartic pills
Hard salt	.. .. .	Ground alum

(I believe it is known to bakers only by this name.)

Vol Ammon. carb.
(Sometimes called "Tom" by bakers.)

Crabs eye	.. .. .	Creta ppt.
Black jack	.. .. .	Mist. sennæ co.
Black strap* (known to Scotch sailors by this name)	.. .. .	Mist. sennæ co.
Red cerate*	.. .. .	Ung. calamin.
Toothache crystal*	.. .. .	Hydrate of chloral
Toothache ice*	.. .. .	Acid carbol. c. collodion

(*Aberdeenshire; contributed by a Scotch assistant.)

We are frequently asked for

Licker stick. Liquorice root

Perhaps the following extract from a work by Nicholas Culpeper, published January 2, 1653 (title page wanting), will account for it:—

"LOHOCH, or ECLEGMATA."

CULPEPER.—"Because this word, also is understood but by few, first explain what it is. 1. The word Lohoch is an Arabick word, called Greek Eclegma, in Latin Linctus, and signifies a thing to be licked. 2. It is in respect of body something thicker than a syrup, and as thick as an electuary. 3. Its use it was invented for was against roughness of the windpipe, diseases and inflammations of the lungs, difficulty of breathing, colds, coughs, &c. 4. Its manner of reception is a *Liquoris Stick, bruised at the end, to take up some and retain it in the till it melts of its own accord.*" Yours truly,

53 Greengate Street, Stafford, March 8.

[Mr. Marson sends also the formula for oil of Exeter, from Cuscuta which we had already received from Mr. C. J. Fox, also oils of the swallows, and earthworms, identical with those quoted from Sam. "Doron Medicum," 1677.]

SIR,—I am interested in your Provincial Names of Drugs and Medicines and think it will be a valuable feature of your journal if you can give contributions from various parts of the world.

The following are a few names I remember meeting while in the trade:—

Glycerine oil	.. .. .	Glycerine
Ox vomit	.. .. .	Nux vomica beans
Agave apple	.. .. .	Colocynth
White eye salve	.. .. .	Oxide of zinc ointment
Horse acid	.. .. .	Carbolic acid
Essence of smelling salts	.. .. .	Aq. ammonia
Butter-colour	.. .. .	Amatto
Wart caustic	.. .. .	Lunar caustic
Lemon acid	.. .. .	Tartaric acid
Blister meal	.. .. .	Ground mustard

I do not think any of these need explanation as to their origin. In THE CHEMIST AND DRUGGIST, vol. 27, page 63, you give "*oleum petulae*," a synonym for "*dogget*." This was evidently copied from *Nat. Drug.*, section 25, 305, where it appeared as a typographical error. It should be "*oleum betulae*." For oil of brick, &c., see *Nat. Drug.*, vol. 6, section "That German Prescription."

Yours, &c.,

St. Louis, February 6. H. M. WHELPLEY, Ph.G.,
Pharm. Ed. Nat. Dr.

[These American synonyms are very interesting, and have a charm of their own. It is well known (or ought to be) that many so-called Americanisms are good seventeenth century English, carried across Atlantic by the Pilgrim Fathers, and better preserved there than at home. With six out of the ten names given by Mr. Whelpley this cannot be said, as the articles are of much more recent discovery, but some others may still survive in this country.]

SIR,—We notice with much interest your growing collection of Provincial Names of Drugs and Chemicals. Amongst them we do not find any mention of two for which we are constantly asked by old customers: pomponell ointment, i.e., ung. samb. vir., and mignonette ointment, empl. mellilot.

We are, yours, &c.,

71 Old Kent Road, S.E., Feb. 23.

POINGDESTRE & THURM

TINCTURA VITÆ MYNSICHTI—MYNSICHT'S TINCTURE OF LIFE.

S. V.	.. .. .	lb. vj.
Damask Rose-water	.. .. .	lb. iv.
Orange and Citron Peels, Red Roses, dried, Mint- Bawm, White Sanders, Cinnamon, aa	.. .. .	3ss.
Xyloaloe, Mace, aa	.. .. .	3ij.
Seeds of Coriander, of Angelica, of Anise, of Fennel, aa	.. .. .	3iss.
Spicknard, Galanga the Less, Saffron, Cardamoms, Cloves, aa	.. .. .	3ss.
Ambegrise, Musk, aa	.. .. .	3ss.

Let them stand in digestion for 8 days, after destill them by Almbick, to lb. vij., of which put Cassia Ligna 3ij., Confectio Alker (or the juice) 3j, Saffron 3ss. Digest till the tincture is perfect. t with Syrup of Sugar Candy q.s. sweeten it, and keep it for use.

OLEUM HIRUDINUM—OIL OF SWALLOW.

Whole Swallows	.. .. .	No. xvj.
Camomil, Rue, Plantane the greater and lesser, Bays [i.e. leaves], Pennyroyal, Dill, Hyssop, Rose- mary, Sage, Hypericon, Costmary, aa Mj.	.. .. .	[of each a hand]
Common Oyl	.. .. .	lb. iv.
Spanish Wine	.. .. .	lb. j.

Make an oyl according to art. But if you will take so much May But

of Oyl and Boil it with the aforesaid things, it may have the consistency of an unguent.

OLEUM SALIS COMMUNIS—COMMON OYL OF SALT.

French Salt or Spanish Bay Salt as much as you will, dissolve it in water and filter it; mix with this brine (in a Copper Vessel) fine Powder of bricks, double or treble the weight of the salt before dissolution, upon live coals, and let the water evaporate away (continually stirring) till it be very dry; then put the powder into a Glass Retort, well luted, in a Furnace with a large Receiver, giving a naked fire by degrees till eight, so shall you have in the Receiver Oyl or Sharp Spirit of salt; this liquor in a small Retort in Sand by separating the according to Art; then keep it in a Vessel close stopped for use.

OLEUM LATERITUM PHILOSOPHORUM—OYL OF BRICKS.

Bricks broken in pieces, as big as Beans or Pidgeons Eggs, heat them in a Fire and quench them in old Oyl, letting them till they be cold, take them out, beat them into a fine Powder, and still them in a Retort, with a Receiver, in an open fire by degrees: the Oyl dropping from them keep in a glass close stopped.

OLEUM LUMBRICORUM—OYL OF EARTHWORMS.

Earthworms lb. ss. first wash them in water, often changing it, then in White Wine, in which also macerate them an hour. Casting away the water about the Worms into a double Vessel, to which add Oyl Olive lb. ij. White Wine lb. ss. boil it to the consumption of the Wine, then strain it through a Cloth and keep it for use.

OLEUM BALSAMI, PETRI DE EBANO—PETER DE EBANO HIS OYL OF BALSAM.

Myrrh, Aloes, Spicknard, dragoon Blood, Frankincense, Mummy, Storax, Carobalsam, Bellium, Ammoniacum, Sarcocolla, Saffron, Gum Arabic, liquid storax, labdanum, eastor aa 3ij. Musk 3ss. Boil the weight of them all. Being bruised and beaten let them be distilled in B. M.

SYRUPUS CAPILLORUM VENERIS—SYRUP OF MAIDENHAIR.

Hair 3v. Liquorice 3ij. steep them a natural day in lb. vj. of warm water, then after gentle boiling in B. M. and straining, to the strained Liquor lb. ij. adding clarified sugar lb. isj. make a syrup according to Art.

OLEUM EXCESTRENSE—OYL OF EXETER.

Winwood, Centory the less, Maudlin, Fennel, Hyssop, Bays, Marjoram, Bawm, Nep, Pennyroyal, Savin, Sage, Tyme, aa 3iv.

Saernwood, Bettony, Chamapityls, Lavender, aa 3vj.

Rmary lb. j.

Flowers of Camomil, Broom, White Lillys and Elder Seeds, of Cummin and Engrake, roots of Hellebore white and black, bark of Ash, Limon peel aa 3vj.

Eborbium, Mustard Seed, Castoreum, Pyrethrum aa 3j. Oyl lb. xvj. White b. ij. The Herbs, Flowers, seeds and Euphorbium, being bruised, the pots, Barks and Castor cut, and being digested in the wine and oyl in a L. for twelve hours, and then boiled gently to the consumption of the wine, strain it out, and keep the Oyl for use.

Extracted from "Doron Medienu; or, A Supplement to the New London Dispensary." By Salmon. From the Blew Bell in Shoo Lane, Fleet Street, London, July 12, 1677."

Chemist and Druggist—

Hicory picory powder, Hiera picra ..	Aloes et canella
Hicory picory liquid	Vinum aloes
Hydrate of potash (contraction for hydriodate)	Potassii iodidum
Spanish, or Spanish juice	Solazzi juice
Bitter apple	Coloeynth
Fiddle rosin, fiddle rosin, colophony ..	Resina alb. seu resina flav.
Neatsfoot oil, trotter oil	Oleum bubulum
Plummer's pills	Pil. hyd. subchlor. co.
Christison's pill	Pil. col. e. hyos., 2 grs. each
Hamilton junior's pill	Pil. col. c. hyos., 4 grs. each, and prepared with pulv. ext. coloc. co.
Hamilton senior's pill (rarely, if ever, asked for now)	Pil. aloes.

M.

They says Dr. Hamilton's pills are the same as the coloeynth and henbane pill of the Ph.E. (i.e., scotrine or East Indian aloes and scammony, 8 parts; sulphate of potass, 1 part; beat them together; add of coloeynth in fine powder, 4 parts; next add of oil of cloves 1 part, and with the oil of a little rectified spirit beat the whole into a mass. Beat 2 parts of mass with 1 part of extract of hyoscyamus and divide into 5-grain pills. Also, that the compound pills of gamboge, now vended under the name "Morison's No. 2 Pills" were long known as "Dr. Hamilton's

Pills." The latter were made as follows:—Coloeynth, 1 part; gamboge, 2 parts; aloes, 3 parts; and cream of tartar, 4 parts; made into a mass with syrup, divided into 3-grain pills. These are active purgatives, often acting with great violence.]

Mr. Samuel Lawrence, Oban, has met with the following:—

[We omit some that are pharmacopœial and others that seem to be universal.]

NAME	ARTICLE SOLD
Bluestone	Cupri sulph.
Steel drops	Tinet. ferri perchlorid.
Steel powder	Ferri carb. sacch.
Rigobalsam [properly Riga balsam.] ..	Tinet. Benzoini comp.
Fly blister	Emp. cantharidis
Opodeldœ	Lin. opii

[This is very unusual!]

Hippo wine	Vin. ipecac.
Kali water	Potash water
Neatsaw, erabsaw, Jack's grease, troopers' ointment, blue butter, blue unction, ..	Ung. hydrarg. nit.

[Is "saw" a Scottish equivalent of salve?]

Crown councillors' ointment	Ung. hyd. oxid. rubr.
White healing ointment	Ung. zinei oxid. a.b.
Basilicon, or drawing ointment	Ung. resina
Oil of tar for toothache	Cresotum
Chillie pods	Fruct. capsici
Hamilton's pills	Pil. col. e. hyoscyami
Gregory's pills	Pil. coloc. comp.
Plummer's pills	Pil. hydrarg. subchlor. co.
Red lotion	Sulph. zinc., gr. ij.; tr. lavand. co. M. xv.; aq. ad 3j.; solve
White aperient mixture	Mist. alba of King's College Hospital
Scotch paregoric	Tinet. opii ammon.
Black sulphur, or sulphur of ivy	Sulphur vivum
Red raddle	Venetian red
Rheumatic acid	Acid. acetic.
Sticklac	Gum. shellac. alb.

[Stick lac is properly the twigs naturally incrusted by the lac insect from which the lac dye has been afterwards extracted.]

Æthiop's mineral	Hydrarg. sulphuret. e. sulphure
Sai or's pepper	Pulv. enebret.
Opening oil	Oleum ricini
Children's magnesia	Magnes. calc. levis
Baby's water	Liquor calcis
Baby's dusting-powder	Violet powder
Black strap	Mist. soane comp.
Rum colouring	Saccharum ustum
Black sugar	Succ. glycyrrh. Solazzi
Horses' solid turpentine	Terebinth. venet.

And the following rather amusing terms:—

[Some of these being evidently merely ignorant mistakes, our space compels us to omit.]

NAME	ARTICLE SOLD
Corpse-reviver	Pick-me-up
Smell of the doctor	Camphor
Smell of the barber	Ol. verbenæ vel citronel.
Restoring-sulphur	Sulphur hair-restorer
Cage for wain's arm [wain's?]	Vaccination-shield
Squeaker	Musical teething pad
Two starters and a catcher	Small-tooth comb
Early risers	Pil. coloc. comp.
Pills for a speedy passage	" "
Sinners' leaves	Senna leaves
Moral barometer	Balsam copiba
Burnaby's openers	Cockle's pills
Infant's mouth-piece	Teat

[There is more humour in these latter names than in any we have yet received, and they quite meet Max Müller's definition of poetry. Crown Councillor's ointment, Hamilton's pills, Gregory's pills, evidently need historical elucidations. Is neatsaw equivalent to cattle salve?]

SIR,—Under the above heading I find in your journal a collection of names, the majority of which may be classed "Universal." Many of them are familiar to me, both in London and Truro. I think, sir, you would be acting kindly to the young members of the trade, by whom your journal is read, if you point out the errors. I find one of your correspondents sells "arsenic" for "white mercury"; and another, more properly, hydrarg. ammoniat.; but to either I should give in preference calomel (a name which, like "Brande," 1833, I much prefer to hyd. subchlor.), being much less poisonous, the old name "Aquila alba" justifying the appellation of "white." No custom of the province can justify a substitute where the

name has been official, viz., sal ammoniac, P.L. 1836; hydrochlorate of ammonia, sal martis, P.L. 1746; sulphate of iron, ol. excoereuse, P.L. 1677; oil of Exeter (Quiney tenth edition, 1736, gives twenty-eight ingredients). Diacrydium is simple scammony (diacrydium eydoniatum being scammony and quince juice). Balsamum commendatoris is an old name for tr. benzoin co., and may be commander or commadore. Oil of spike is French oil of lavender, oil of virgin is probably virgin oil (ol. alva "Brande," 1833), ol. petre is petroleum, Lelievre's "Baume de vie" was a decoction of aloes with gentian, rhubarb, &c. I have been thirty-six years in the business and never before heard of tr. lavand. co. being used as a substitute for dragons' blood, sanguis draconis, a resinous product of *Calamus draco*, and were I the analytical chemist of the district I certainly should advise a prosecution, one being an astringent, the other a stimulant. Notwithstanding the protest of the worthy secretary, many persons consider the Chemists and Druggists' Association "Provincial." If chemists paid the same percentage for auditing their accounts there are not many who would be in a position to say they "would not call King George their uncle"! Is this quotation "Provincial"? If there were no faultfinders there would be no fault-menders.

Truro, February 24.

I am, yours truly,

P. VINCENT.

[We are unfortunately compelled to differ from our friendly correspondent as regards white mercury. There is historical proof, which will be adduced in good time, that it was really white arsenic, and it would be a great mistake to substitute calomel for it. People would get accustomed to the milder article, and disaster would follow if they chanced to get the real thing. If white mercury were a newly-invented name the matter would be different. We quote a sentence from Nicholson's "Chemical Dictionary," p. 808:—"Alchemists have given the name of mercury to many other things besides the metallic substance generally so called. The latter they call ordinary mercury, and value it little. We cannot precisely say what they meant by their mercury." No term is more frequently used by them." Cinnabar of antimony, really mercuric sulphide, is another instance of this confusion.]

To the Chemist and Druggist—

SIR,—An old Pharmacopœia of mine (title page gone, but from various references in it to Quiney and others, I judge the date to be about 1740) gives Diacodium—Syr. papav. alb. A special form is given for diascordium, which is an electuary, and contains seventeen ingredients. [The writer then makes quotations from the lists of simples and preparations, which want of space compels us to omit.]

A countryman's method of digesting the earthworms in oleum nigrum is to bury the jar in a dung-heap for a considerable period. I am informant to make it twenty years ago for one of the farmers I had met with a sprain. "After digesting some time in a dung-heap, the worms had settled to the bottom of the jar, and a beautifully clear liquor poured off."

Beasley gives two formulæ for baume de vie and balsam vitae. You two very old manuscript recipes of mine:—TINCT. VITE.—[The same form as that given in this issue by Mr. C. C. Bell.]

ELIXIR OF LIFE.—Gum guaiacum, 8 oz.; balsam Peru, 1 oz.; wine, 1 quart. "Digest in sand heat four days, then strain and add 2 drachms distilled oil of sassafras. For any fresh cut or wound this is excellent in either Man or Beast, and what Doctors make so extravagant a charge for." I think the "Midland Chemist" is right in saying Tr. vite and Bals. vite should be a preparation of guaiacum: gum lignum vitae balsam vitae.

T. W. Picken.

Newport, Salop, March 4.

ERRATA.—In the contribution of Mr. T. W. Picken, of Newport, printed last month, there are some obvious misprints in the three recipes. Tinct. aloes comp. P. L., refers to elixir proprietatis, not tincture of steel also. Ferri oxidum explains Goleothar only, not nitroglycerine. Oxyirocia, the last word in the column, should have been oxyeroacia.

One or two peculiarities I have come across in my time:—

NAME	ARTICLE SOLD
Lungs of oak	Iceland moss
Oil of spike	Coloured turps (e. anethus.)

(Ol. lavan. spic. is really meant.)

Elixir proprietatis	Dec. aloes co. not tinctus
Sarsaparilla balls	Sal prunella
Camomile powder	Hydrag. subeth'or.

[These two are evidently mistakes of ignorance.]

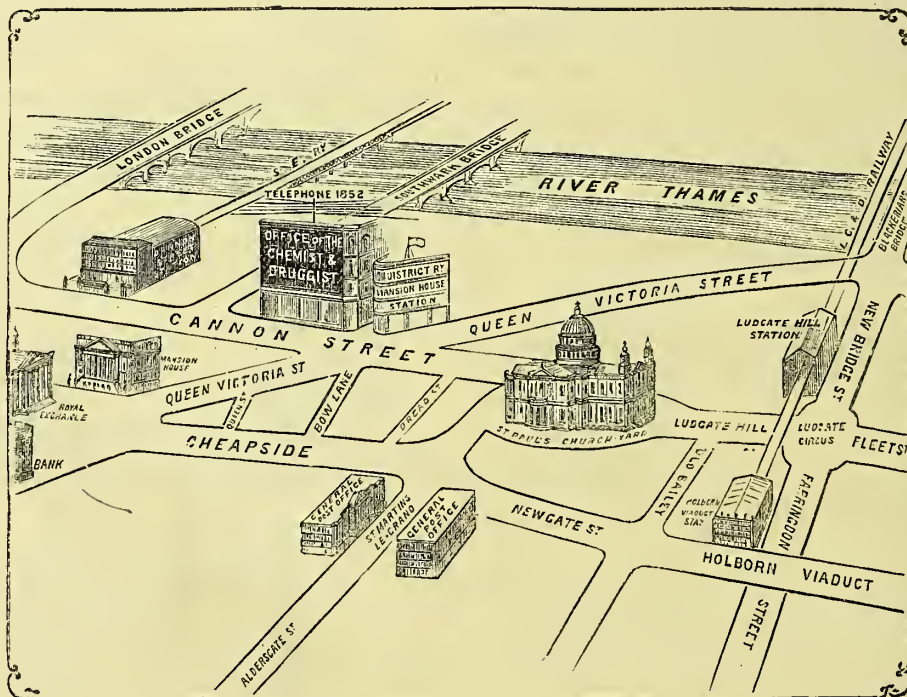
Diluted nitre	Sp. æth. nit.
White mercury	Arsenic. alb.
Decodium [i.e. Diacodium]	Syr. papav. alb.
Hydride potash	Potass. iodid.

Portsea, Feb. 23.

Yours faithfully, W. R. Fowl.

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New York Medical Journal, 1880, Dr. F. WEIR.

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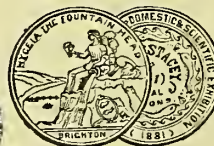


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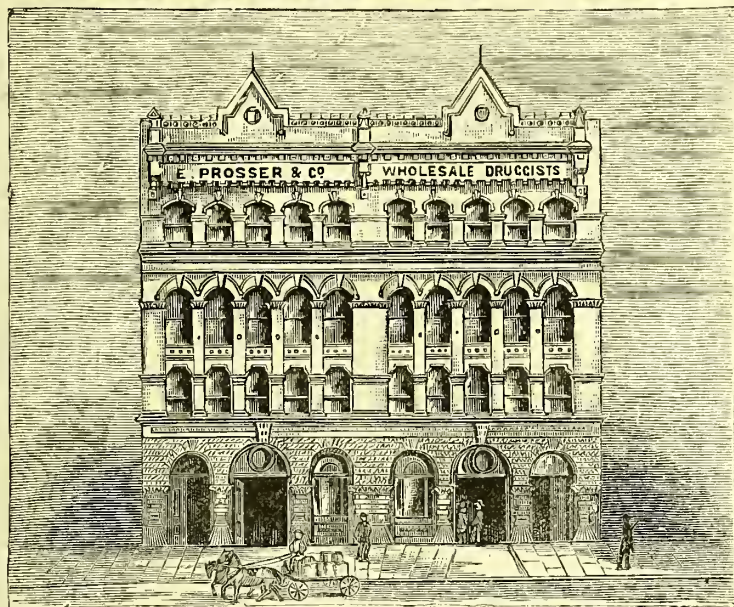
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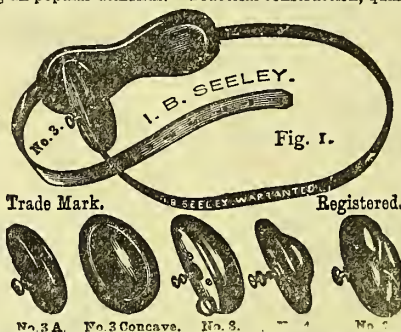
JUDGES:—THOMAS BRYANT, F.R.C.S.; CHRISTOPHER HEATH, F.R.C.S.; THOMAS SMITH, F.R.C.S.; JOHN WOOD, F.R.S., F.R.C.S., London.

SEELEY'S HARD RUBBER TRUSSES,

MADE IN EVERY DESIRABLE PATTERN.

Prices reduced below competition, meeting all popular demands. Practical construction, quality of material, high finish, never equalled.

Fine steel springs, neatly covered with highly polished Hard Rubber, with Pads anatomical and practical in construction. Used in bathing. Unaffected by time, use, or climate. Affording comfort, safety, cleanliness, and durability to the wearer, with steady and successful adjustment to the dealer, without the loss and annoyance of soiled or damaged stock—important advantages justly appreciated by the trade, as their unprecedented demands give most positive proof.



Having long established superior quality of material the first consideration, all the different parts in the construction of my specialties will be found unequalled excellence, while my practical experience for a quarter of a century devoted to the extensive Relief Department of my establishment afforded special advantages in proper construction of Trusses to best meet the requirements; hence the efforts to imitate my Patterns, adopt long-used Trade marks and Copyright with claims of "just as good as Seeley's" often made.

CAUTION TO COUNTRY DEALERS.—As success finds envious imitators, to better secure your demands against the various imitations which are being offered, ask for "Seeley's Genuine," stamped (spring and strap) "I. B. SEELEY—Warranted."

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The correct and successful mechanical treatment of **HERNIA or RUPTURE** a **SPECIALITY**, under patronage and endorsement of the World's most distinguished Surgeons and Practitioners.

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GOUT, RHEUMATISM, COLDS, NEURALGIA,
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Consisting of Flannels, all Descriptions of Underclothing, Chest Preserver, Knee Caps, Knitting Yarn, Wadding, Pine Needle Oil for Embrocation, Bath Extract, Soap, &c. &c.

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MANUFACTURED BY THE NEW YORK AND CHICAGO CHEMICAL CO.

This Pepsin is simply the pure unadulterated gastric ferment in the form of transparent golden scales.

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A PURE PEPSIN AT THESE PRICES.

In 1 oz. Bottles, 2/ each, Packed 16-1 oz. Bottles in Wooden Box.

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Discount 15 per cent. in lots of 15 lbs. Assorted to suit Purchaser.

BEYOND QUESTION THE BEST PEPSIN FOR PHARMACEUTICAL PREPARATIONS.

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CARL JENSEN'S PEPSIN.

5 SHILLINGS PER OZ.

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IN TRANSPARENT GLASSY SCALES.

This Peptone is not a partially digested Product, but representing the beef completely digested by the pepsin mentioned above, containing all the elements of the beef except fat. One ounce equal to eight ounces tender beef. Retail 2s. 6d. per ounce.

The above preparations are only manufactured and put up exclusively as specialities by

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For Dyspepsia, Mental & Physical Exhaustion, Nervousness, Diminished Vitality, &c

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PROF. HORSFORD'S ACID PHOSPHATE

(LIQUID).

Prepared according to the Directions of Prof. E. N. HORSFORD, of Cambridge, Mass., U.S.A.

FORMULA:—Its analysis shows that each fluid drachm contains 5 1-2 grains free Phosphoric Acid (P_2O_5), and nearly 5 grains Phosphate of Lime, Magnesia, Iron, and Potash.

It is a colourless liquid, acid to the taste, and contains no pyro-phosphate or meta-phosphate of any base whatever.

Among the numerous forms of phosphorus in combination, Horsford's Acid Phosphate seems best adapted for use as a medicinal remedy.

Especially serviceable as a menstruum for the administration of such alkaloids as strychnia, morphia, quinia, and other organic bases which are usually exhibited in acid combination.

It makes a refreshing and nutritious drink in fevers, and with water and sugar a delicious beverage.

EXTENSIVELY USED BY THE PHYSICIANS IN THE UNITED STATES.

Cable Address—"RUMFORD, PROVIDENCE." RUMFORD CHEMICAL WORKS, Providence, R.I., U.S.A.

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Physicians who have not used Horsford's Acid Phosphate, and who wish to test it, will be furnished a sample on application to either of the above agents free of charge, except the expense of packing and postage (sevenpence), which amount should accompany the application.

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Under Patronage of the United States Government.

ESTABLISHED A.D. 1850.

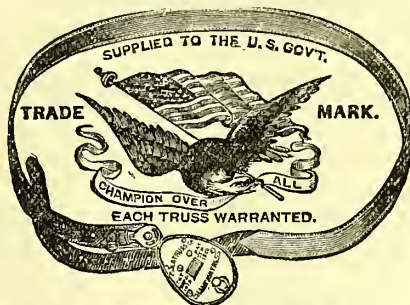


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 PENSION DEPARTMENTS,
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GENUINE
 BEAR OUR
FIRM NAME,
 Dates of Patents,
 AND OUR TRADE MARK,
"CHAMPION,"
 ON PLATE OF EACH TRUSS.

OUR IMPROVED PATENT "CHAMPION" TRUSS

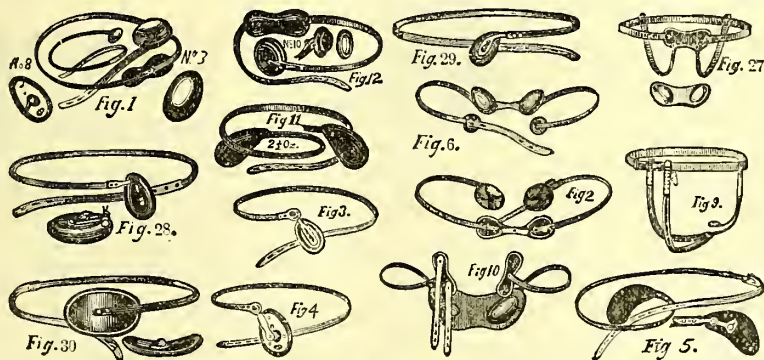
Is handled in larger quantities than any other Truss by Wholesale Houses in the United States, and will be so in other countries when its high merits are seen.

Our line of Genuine **HARD RUBBER TRUSSES, &c.**, is the most complete in the Trade, and our prices the lowest.

Rubber is specially cured for trusses, and less liable to crack than other makes.

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THE PHILADELPHIA TRUSS COMPANY,

Inventors and Sole Manufacturers of the IMPROVED PATENT "CHAMPION" TRUSS (Patented Sept. 21, 1875, and Sept. 21, 1880); also Manufacturers of the

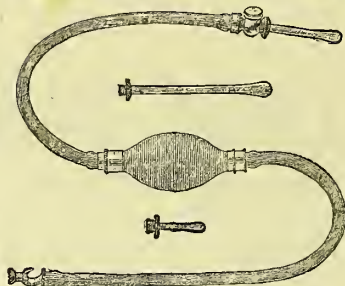
Adjustable Abdominal Supporter (best in use), Spring and Elastic Trusses, Abdominal Supporters, Elastic Stockings, Belts, Shoulder Braces, and Suspensory Bandages.

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Nos. 1 and 2,
**PURE BLOCK TIN
PIPES.**



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**HARD RUBBER
PIPES.**

UNIVERSALLY ACKNOWLEDGED TO BE THE MOST PERFECT ENEMAS MAL.
A PERFECT INSTRUMENT that can always be relied upon is the CHEAPEST.

With the DAVIDSON Syringes, absolute perfection in the purity of stock, and skill of construction, are the objects aimed for, so that by their great durability they are much cheaper to use than any others.

WE COMPETE ON QUALITY ONLY.

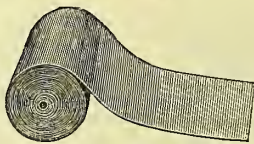
The trade never have any bad stock of DAVIDSON Syringes, which is so often the case with the cheap, worthless Syringes, such as rubber growing hard, pipes corroding, valves useless, &c., &c., and during the 25 years that we have made them, we do not recall a single complaint of their quality. The quality is specially desirable in countries where they have not the means of repairing, or where the climate effects the cheap adulterated rubber goods.

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These goods are exported to England, Germany, France, Holland, South America, Mexico, East Indies, &c.

GREAT IMPROVEMENT IN RUBBER BANDAGES.

DAVIDSON'S
60 FEET



DAVIDSON RUBBER CO.

BANDAGES
LONG.

The advantages in these Bandages will at once suggest themselves to Physicians and Druggists.

They are made 60 feet long in four widths (1½, 2, 2½, and 3 inches), so that any length or width desired can be cut off, and it relieves the Druggists from the necessity of carrying in stock a line of Bandages of various lengths.

Many objections are found with Bandages that are made with tapes on the end, as the tapes, being non-elastic bind the limb so rigidly as to stop or impede the circulation.

With Davidson Bandages these objections are entirely removed, as they are secured in place by using diaper or safety pins, so that no part of the limb is bound by non-elastic material.

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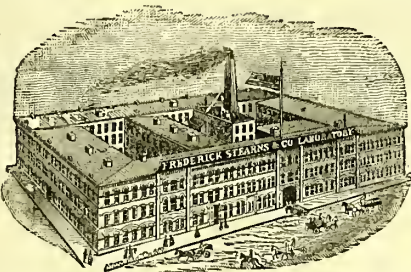
DAVIDSON RUBBER CO.,

Manufacturers of Druggist, Surgical, and Fine Rubber Goods,
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FLUID EXTRACTS.....	582
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Pills—Soft, pilular and powdered.....	710
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PURE POWDERED DRUGS—In cans.....	810
EFFERVESCING GRANULES.....	62
MEDICATED LOZENGES.....	173
SUPPOSITORIES.....	422
MEDICATED SYRUPS.....	312
MEDICATED TINCTURES.....	413
MISCELLANEOUS.....	Over 10,000

Our Laboratory—rebuilt in 1880-1, and in 1883 again enlarged to full double its capacity—is the largest of its kind in the world, and is filled with the latest appliances for accurate, rapid work and economy of labor.

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ADVANTAGES GAINED.—No heat is employed; the volatile essences are retained unaltered. A solvent of unvarying specific gravity is used throughout the process. The finished and saturated product more naturally represents the drug—tested by appearance, taste and odor—than do the ordinary fluid extracts.

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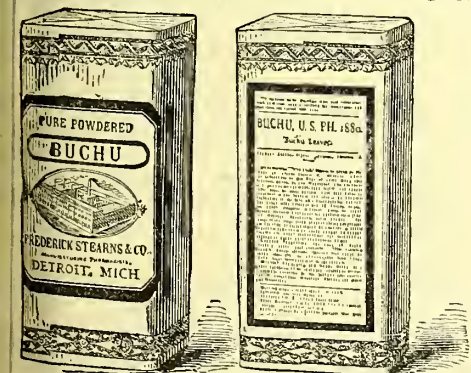
SAXOLINE, our name for a natural petroleum jelly (now official as Petrolatum, U. S. '80), forms an excellent basis for ointments, because it never becomes rancid.

STYLE.—These ointments are put up in air-tight (new style) glass jar, price including jar. It forms an elegant shopshelf jar, and when empty may be used for other purposes.

Saxoline itself, plain carbolated, camphorated, thymolated, arnicated, etc., is furnished in pound tins, in five, ten and twenty-five pound tins, in one, two and four-ounce vials, at remarkably low prices. Warranted equal in every respect to the high-priced proprietary articles. May be had at any melting point from 105° F. (usual) to 120° F.



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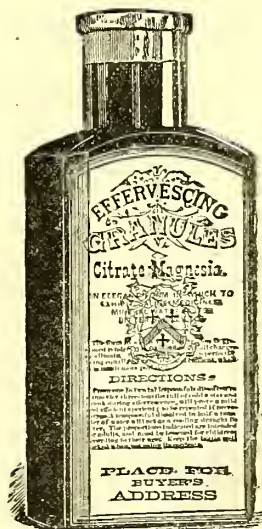


NOTE.—We warrant our powdered drugs to be of good quality, to be prepared with care by steam power, in machinery of improved design and to be sent to our customers free of adulteration.
PACKED.—Our powders are put up in pounds—elegant-shaped tins; annisiers; air tight, covered with handsome tinted wrapper, with an outer gold, white and black, similar to a shop furniture label, with a back label in crimson, white and black, upon which is given the description, properties, dose and uses of the drug with formulae. These may also be had in five-pound tin cans, in ten-pound tin cans, and in paper or wood, under our guarantee label.

EFFERVESCING GRANULES.

A form well adapted to the exhibition of saline aperients, mineral water or bitter salines of alkaline or metallic salts found in mineral springs, and of remedies which are aided by the sedative action of carbonic acid or the refrigerant properties of vegetable acids.

Put up in two sizes, bottles that hold six and three fluidounces, cobalt blue flint, metal caps, each half dozen or one dozen in cartons. All of these may be had in bulk in one-pound to ten-pound cannisters, and if in larger lots special quotations will be made.



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Issued monthly or as occasion shall require.

It is issued postpaid to customers regularly; but as often as four times a year a copy is mailed to every druggist in fair rating in the United States, West Indies, Central and South America, Mexico, Africa and Polynesia.

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OF INTEREST TO THE TRADE.

The undersigned ask the particular attention of the Trade generally to their Special Advertisements inserted in "The Chemist and Druggist" of January 15, 1885:—

Page	12	.....	FOSSILINE.
"	23	.....	DRUGGISTS' SUNDRIES LIST.
"	25	LESCHER'S MATERIA MEDICA.
"	68	SAVARS REQUISITES.
"	76	CONROY'S MALT COFFEE.
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"	148	NOTICE TO CHEMISTS ABROAD.
"	161	TRADE ADVERTISEMENT.
"	163	EVANS' FLUID EXTRACTS.
"	211	POROUS PLAISTERS ON FELT.

And to the Advertisements on Pages 30, 128, 141
of this issue.

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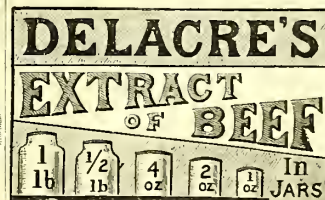
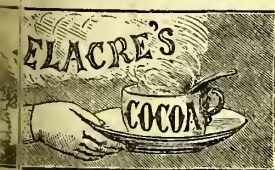
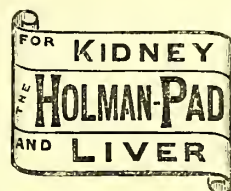
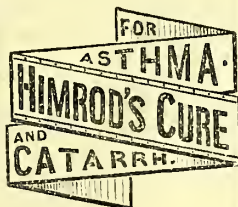
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HOME AND FOREIGN.

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PHOSPHORIC ACID, B.P. strength and concentrated, Pure and Free from Arsenic
LIQ. FERRI PERCHLOR. FORT., B.P. Free from Arsenic, and Soluble in Spirit
HYPOPHOSPHITE of LIME, SODA, &c. CYANIDE of
POTASSIUM.

Ferri et Ammon. Cit., Ferri et Quinæ Cit., B.P., and other Scale Preparations.

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MANUFACTURING CHEMISTS,

LONESOME CHEMICAL WORKS, STREATHAM COMMON, S.W.,

Makers of all the Hypophosphites; also of Valerianic Acid and all Valerianates, Bisulphide of
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Refiners of Sulphur in Rock or Roll, Ground Sulphur, Washed Sulphur, Milk
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[ESTABLISHED 1853.]

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Also Chemical Manure Manufacturers.

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Three-Fourths of the total quantity
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BUYERS ARE REQUESTED TO SEND FOR SAMPLE AND PRICE.

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Ammonia Valerianate, Iron Valerianate, Soda Valerianate, Zinc Valerianate Crystal or Powder
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Prepared from Pure and Methylated Spirit.

Put up in all sizes of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in bottles cork and luted (stoppers attached), and in hermetically sealed flasks when required.

M.B.—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering all the tests of the British Pharmacopæia.

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SP. AMMON. AROMAT. | SP. ETHER. NITROS. | SYR. FERRI PHOS. CO. (PARRISH).

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(LATE DREW. BARRON, & CO.),

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MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,
Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive
careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their
having PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and with it the
various Formulæ from which their Special Preparations have been made, and pledge themselves to supply them
in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

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MANUFACTURERS OF

SCHERINGS' PURE CHEMICALS

PARTICULARLY OF

AC, CARBOLIC or Phenol Absolut.	Fine white hard crystals -- ...	Free from Cresylic Acid. Watery solution will not show greasy spots floating on top.
AC, GALLIC -- ... --	Almost white needles ... -- ...	Freely and entirely soluble in alcohol or water.
PYROGALLIC -- --	Bi-sublimed, white, bulky ... --	Ditto ditto ditto.
SALICYLIC (Kolbe's)	White, powder, crystallised, and dialysed	Dissolves colourless in water or alcohol; purest for medicine.
TANNIC -- -- --	Lightest crystals ... -- --	Dissolves almost colourless in water, alcohol, and ether.
" -- -- --	Powder and granulated ... -- --	Dissolves freely in water, alcohol, and ether.
CELOIDINE (Patent) -- ...	Gelatine plates ... -- --	Purest Pyroxylin; inexplusive.
CHORAL HYDRATE -- --	White cake and crystal ... --	See Liebreich's, below.
CHORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
CHOROFORM (ex Liebreich's Chloral)	Schering's original label -- --	Free from foreign chlorides. Will leave no odour on evaporation.
CHLORON CHLORAL -- -- --	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
GLYCERINE -- -- --	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
IODINE -- -- --	Resublimed, fine scales ... -- --	Purest.
IODOFORM -- -- --	Dry yellow scales ... -- --	Purest, by medical reports.
POASS BROMIDE ... -- --	Fine white dry regular crystals ...	Perfectly free from iodide, and the most free from chloride.
CAUSTIC -- -- --	Lump and stick, white -- -- --	Commercially pure, and pure by alcohol.
CYANIDE -- -- --	Ditto ditto ... -- --	30%, 45%, 60%, and 95%.
PERMANGANATE	Large and small crystals ... --	Chemically pure.
IODIDE -- -- --	Fine white dry regular crystals ...	Apply Barytic and other tests. This will never change colour.
SILVER, NITRATE -- -- --	Fine large crystals ... -- --	63 to 63½% pure silver.
SOA, CAUSTIC ... -- --	Lump and stick, white ... -- --	Chemically pure, and pure by alcohol.
SOA SALICYLATE, and other Salicylates	White powder and crystals ... --	Freely soluble in water and alcohol.

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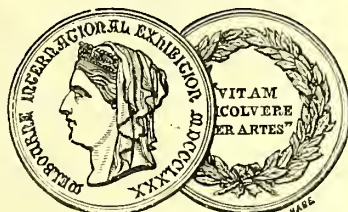
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THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment, 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from presenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 1, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement of Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

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Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dub
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	Liverp
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	Yor
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Raines, Blanshards & Co.,	Edinbur
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sang & Barker,	"
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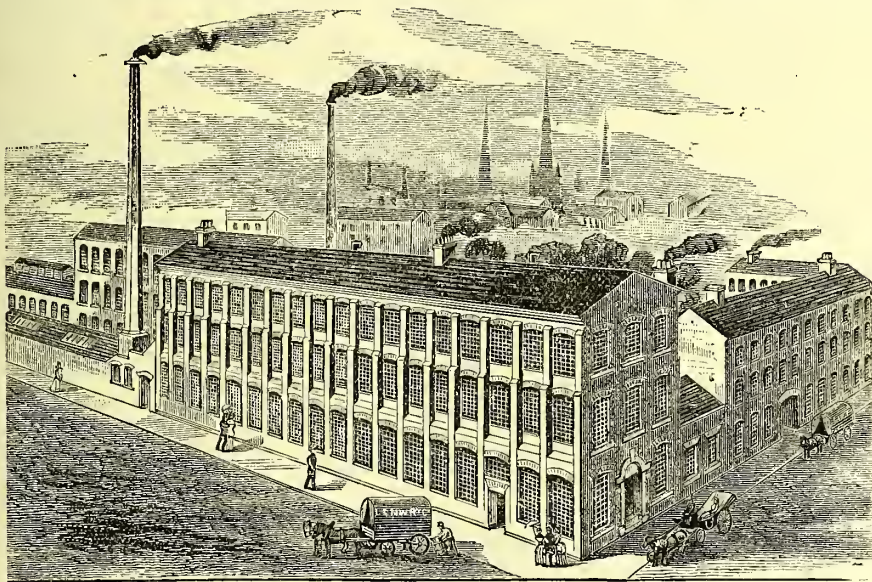
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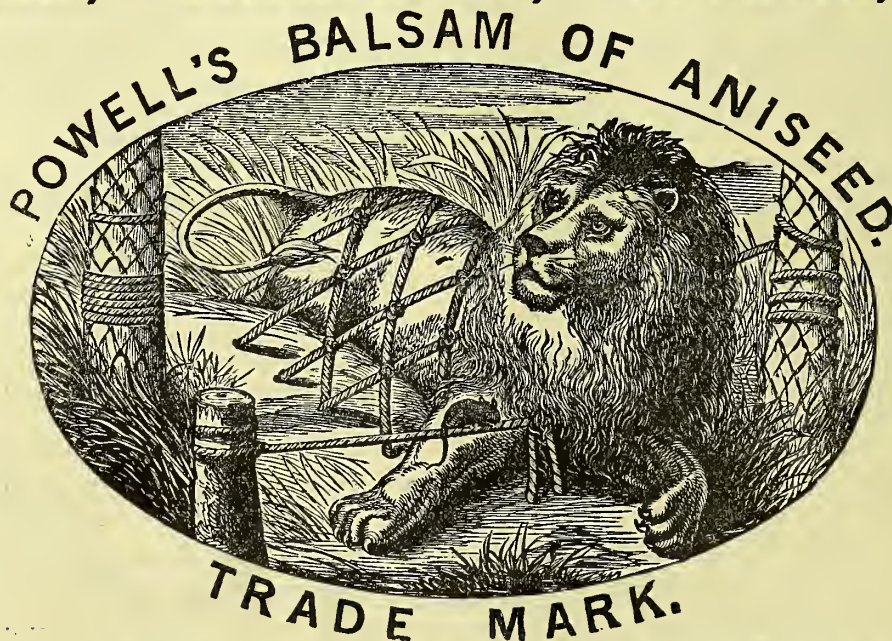
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THIS INVALUABLE and WELL-KNOWN PREPARATION

has now been before the public for nearly 70 years, and has obtained a world-wide reputation for the CURE (without the use of Lances or Leeches, as has been proved in Thousands of Cases) of KNOTTY, INFLAMED, and ULCERATED BREASTS, and is the ONLY REMEDY that can be relied on for relief in those distressing complaints to which the Female Breast is subject after confinement.

THE VIRTUE OF THIS SALVE is not confined to the Female Breast alone, but it is equally efficacious in CURING all those complaints where inflammatory action is present, and to which the body is ordinarily or accidentally subject, such as AB-CESSSES, TUMOURS, ULCERATIONS, BAD LEGS, BED SORES, BURNS, SCALDS, BRUISES AND CRUSHES, FESTERED FINGERS, &c., &c., and numerous persons have testified of the GREAT RELIEF they have obtained from its use in MUSCULAR RHEUMATISM, while hosts of Genuine Testimonials from persons unknown to us have been received unitedly testifying to its wonderful and unequalled efficacy as a BREAST and FAMILY SALVE.

NOTE.—CHEMISTS, PATENT MEDICINE VENDORS, &c., who do not keep this article in stock are requested to give it a trial. It will be found to be the FINEST SALVE that can be stocked, and once known recommends itself. For the Breast it is not equalled by any Ointment or Salve made; and as a Family Salve, for use in all external ailments where inflammation is present, as enumerated above, it is equally valuable and efficacious. The best guarantee that can be given of its intrinsic value is the fact that it has sustained its reputation above all similar preparations for nearly 70 years.

Can be obtained, with a supply of handbills, through any English Wholesale Druggists, and of the Proprietors and Manufacturers, [2]

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Natural Digestive Principles

AND

SPECIAL FOODS FOR CHILDREN & INVALIDS



THE LANCET. *March 25, 1882:*—"Mr. Benger's admirable preparations."

THE MEDICAL PRESS, *June 13, 1883,* says:—"Few modern improvements in Pharmacy have done so much as Benger's Preparations to assist the physician in his treatment of the sick."

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Containing all the digestive principles of the fresh pancreas. Used to prepare peptonised or partially digested food (no apparatus beyond a jug and a saucepan required), and also medicinally as a digestive.

In 4, 8, and 16 ounce Bottles, to retail at 2s. 6d., 4s. 6d., and 8s. 6d.

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An exceedingly active Fluid Pepsine. Dose—One or two teaspoonfuls with meals.

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A DELICIOUS QUICK RESTORATIVE—WILL KEEP IN ANY CLIMATE.

A concentrated partially digested and solidified beef tea, of delicate flavour. Unlike the various Extracts and Essences of Meat, it contains much of the fibrin or flesh-forming element of the beef in solution. Tins, 2s.

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For Infants, Children, and Invalids. Containing the natural digestive principles of the pancreas; when mixed with warm milk a process equivalent to partial digestion takes place, by which both the food and milk are adapted for rapid absorption. In no other food has this result been obtained. It can therefore be taken with comfort when all others disagree.

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The ONLY MEDICINE of the KIND AWARDED A CERTIFICATE of MERIT at the CALCUTTA INTERNATIONAL EXHIBITION, 1883-4,
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Will keep in any Climate, and is therefore specially adapted for SHIPPING, and wherever introduced COMMANDS A LARGE SALE.
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Dr. LALOR'S PHOSPHODYNE makes an agreeable Beverage with Water Only. INVIGORATING and VITALISING the BLOOD with the PHOSPHORIC or active Principle of Life.

Sold in Bottles, at 4s. 6d. and 11s., by all Wholesale and Retail Medicine Vendors throughout the World. Manufactured only at Dr. Lalor's Phosphodyne Laboratory, South Hill Park Road, Hampstead, London, N.W.

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The attention of Shippers and the Trade is directed to the great advantages in price and quality of this fine Brand of Norwegian Cod Liver Oil.

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The "Extra Pale" Cod Liver Oil.
Unchanged at 32° F.

Pure White Beeswax, in bars
Free from rancidity. M.P. 150° F.

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Pure Crushed Linseed,
Ground from Screened Seed.

Dalmatian Insect Powder,
From Unopened Flowers, free from added colouring matter.

Ointments Levigated by Steam Power.

Spirit of Nitrous Ether,
Guaranteed of official strength.

Aromatic Spirit of Ammonia,
Distilled from Volcanic Ammonia.

Assayed Opium, Cinchona, & Scammony
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Soluble Essences of Ginger, Lemon, &c.,
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Soluble in cold water.

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IRON LIQUOR, PURE NITRATE OF IRON,

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For centuries this oil has enjoyed a wide-spread reputation in China and Japan as an external remedial agent in Rheumatism, Inflammation of the Joints, and Glandular Swellings.

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Liquid Camphor in its natural and most active form. Imported from China and Japan. Made by distilling the wood of the Camphor Tree (*Laurus Camphora*). Chemically it consists of a saturated solution of Camphor in a terpene, in the proportion of about one in four.

This natural oil must speedily supersede the fatty oils and ointments of Camphor now in use, as it is both more cleanly and efficacious.

Price, 1s. 3d. per lb.;
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In Ordering specify "UMNEY'S."

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London International and Universal Exhibition, 1884, Gold Medal Awarded for our Pharmaceutical Preparations
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HEWLETT'S LIQUOR SANTAL FLAV. c. BUCHU et CUBEBA

PLEASE NOTE AND HAVE OUR ORIGINAL ARTICLE, WHICH MUST BEAR OUR SIGNATURE.

Since we introduced this elegant preparation it has been largely employed in the treatment of gonorrhœa and gleet, and with the happiest results. It is so much superior to copaivi, as it does not interfere with the digestive organs. The disagreeable eructation which follows the administration of copaivi is not experienced, and the unpleasant rash (*Urticaria*) has not been noticed. It is especially indicated in the advanced stages of gonorrhœa and chronic gleet. If it be given in the beginning, before the inflammation has fully developed, it may sometimes succeed in abating the attack, but if it fail to accomplish this it had better be suspended, as it may aggravate the symptoms during the inflammatory stage. In other inflammatory affections of the genito-urinary mucus membrane, such as pyelitis and chronic cystitis, when the disease is of a subacute or chronic character, the liquor santal may be employed with great advantage. Santal Oil has been the remedy of some eminent surgeons in the treatment of gonorrhœa, but in combination with buchu and cubebs it is much more efficacious. The great difficulty in its administration was its suspension in mixtures, but this trouble is arrested by a beautiful pharmaceutical process, and our preparation will be found perfectly miscible in water.

Price (in England) 10s. 6d. per pound, packed (for Dispensing only) in 10-oz., 22-oz., 40-oz., and 90-oz. Bottles.

From Dr. GOURLEY, F.R.C.S., Senior Surgeon, Hartlepool Hospital.

"I have found your 'Liq. Santal Flav. cum Buchu et Cubeba' invaluable in several cases of gonorrhœa, and more particularly in gleet. I consider it one of our best remedies in this frequently tedious complaint. It forms a nice mixture, and is quite free from the symptoms produced by copaiva.—S. GOURLEY, M.D., F.R.C.S., Senior Surgeon to Hartlepool Hospital.—To Messrs. C. J. HEWLETT & SON, Creechchurch Lane, London."

C. J. HEWLETT & SON,

MANUFACTURING AND PHARMACEUTICAL CHEMISTS.

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ESTABLISHED 1832.

Physicians will oblige, when ordering *Liq. Santal Flav. cum Buchu et Cubeba*, by writing "*Liquor Santal Flav. c. Buchu et Cubeba* (Hewlett's)," as there are many imitations.

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HYDROBROMIC SYRUP OF HYPOPHOSPHITES, &c.

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SPECIAL PHARMACEUTICAL PREPARATIONS.

GLYCEROLE OF PEPSINE

A SPECIAL PREPARATION.

Perfectly reliable, and the most valuable fluid form for the administration of *Pepsin Porci*. It is of definite strength and slightly acid; free from odour, and almost tasteless.

7/ per lb., C. Qts. 6/6, W. Qts. 6/.

WILL KEEP GOOD IN ANY CLIMATE

THE TRUE OL. RUSCI.

The new remedy for Eczema and Ringworm. Imported direct from the interior of Russia. See *Pharm. Journ.*, pp. 351, 439.

8/ per lb., C. Qts. 7/, W. Qts. 6/.

Also, TINCT. RUSCI, COLLOD. RUSCI, and POMADE RUSCI, "Hebra."

SUCCUS TARAXACI

FROM THE FRESH AUTUMNAL ROOT.

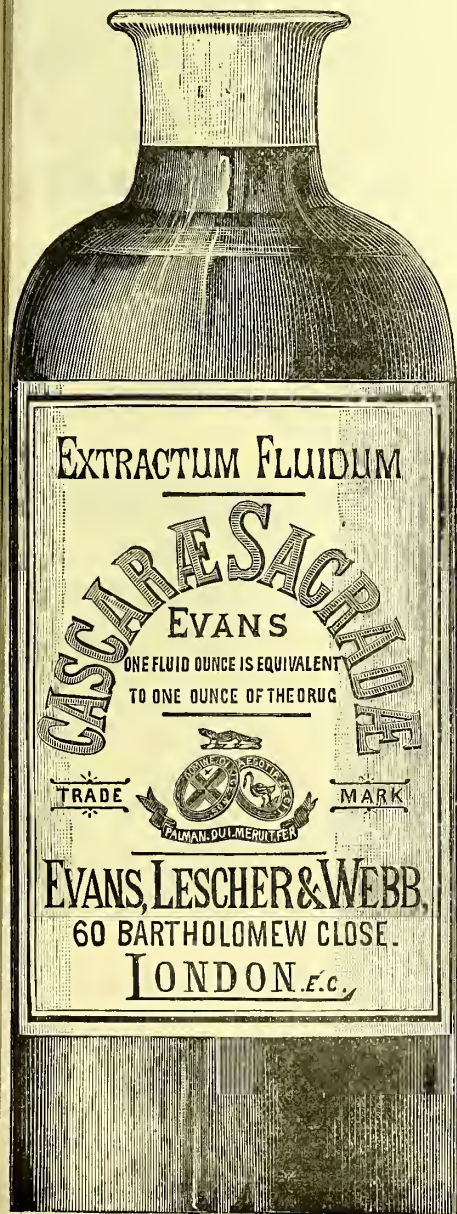
Prepared by a special process in which the flavour is preserved and the bitter principle retained; the product being bright and clear, with all the medicinal qualities of the fresh root unimpaired.

1/10 per lb., C. Qts. 1/8, W. Qts. 1/6.

WILL KEEP GOOD IN ANY CLIMATE

THOMAS GREENISH, Pharmaceutical Chemist,
20 New Street, Dorset Square, N.W., and
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"Decoctions, infusions, vinegars, and wines have almost gone out of use, while tinctures and syrups are steadily falling into disuse, though not as rapidly as they deserve. These are all replaced by the far more accurate and convenient fluid extracts with their small and effective doses, which can be so easily

administered in so many different ways. Thus the physician and pharmacist, instead of having to keep two or three preparations of the same drug to get stale on his shelves, has to keep only one, and this the best and most accurate one." *"Modern Progress in Materia Medica."*—N. Y. Medical Association.—E. R. SQUIRE, M.D.—Nov. 18th, 1884.

EVANS' FLUID EXTRACTS, at first made by us in Canada (some from the fresh plants), according to the U. S. Pharmacopœia, are now perfected in our own laboratories. They are prepared by elaborate processes, with the menstruum most suited to each individual drug; in odour and taste they well represent the crude drug, and in strength they contain the whole of the active medicinal properties.

Infusions, decoctions, tinctures, wines, and syrups can be at once obtained from these fluid extracts, by simply mixing one minim for every grain of the

drug ordered. This is perhaps the most perfect method of making such preparations of an accurate strength.

They are put up in actinic glass bottles, of 5, 10, and 20 fluid ounces, capsuled, with a large gold front label; a special feature, to assist in dispensing, is the back label, containing full scientific names, botanical origin, description, medical properties, dose, strength, active ingredients, &c.

Complete lists of about 100 kinds, with prices, free on application; amongst them may be mentioned—

McDade's Compound
Berber. Aquifol.
Cascar. Sagrad.
Coca
Convall. Maj.
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Damia
Encalyptus
Etonymus
Gelsemium
Grindelia Robust.
Guarana

Hamamelis
Jaborandi
Piscid. Eryth.
Rheum
Senna
Viburn. Prunif.

SPECIMENS OF BACK LABELS.

CASCARA SAGRADA.

Rhamnus Purshiana:
growing in California.
N. O. *Rhamnaceæ*.

This plant is a powerful tonic, laxative, preferably in small doses extending over some time. The bark is in largish pieces, rather flat and thin, breaking short; pale yellowish brown, with adherent brown outer bark, and dark fibrous inner layer; little odour, and nauseous taste; when the outer layer is corrugated and thickened, the bark is not so valuable. The fluid extract represents measure for weight, one minim being about equal to one grain of the powdered bark.

Dose.—3 to 15 drops as a laxative; 20 to 50 drops as a purgative.

COCA.

Erythroxylon Coca.
S. America.
N. O. *Erythroxylaceæ*.

The leaves are oval lanceolate, slightly coriaceous, green, not brown, with pleasant odour resembling tea: they should possess the characteristic line running up the leaf on either side of the midrib. Cocaine, in colourless crystals, is the active alkaloid.

Coca stimulates the whole nervous system, as a tonic restorative.

Dose of fluid extract, 30 to 100 minims.

Strength of fluid extract: one fluid ounce is equivalent to one ounce of the leaves.

STILLINGIA COMP.

The following five herbs have been used as antisiphilics by the North American Indians.

This compound is prepared according to the formula used by Dr. McDade and Dr. Marion Sims: it is a mixture of the fluid extracts of

Stillingia sylvatica, *Queen's root*

Smilax Sarsaparilla, *Banboo brier*

Artium Lappa, *Burdock*, *Physalis decandra*.

Poke root and the tincture of

Xanthoxylum Carolin-

ianum, *Prickly ash*.

A powerful alterative.

Dose of these compound

fluid extracts, one fluid

drachm in water, thrice a

day, gradually increased up

to doses of 2 fluid ounces.

Strength of fluid extracts:

one fluid ounce is equivalent

to each of the roots of *Stil-*

lingia, *Banboo Brier*, *Bur-*

dock and *Poke Root*, and

the bark of the *Prickly Ash*.

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The New Remedy for Neuralgia, Tic, Toothache, Nervous and Sick Headache

ONE SIZE ONLY—HALF-A-CROWN.

Price 24/- per dozen, subject to usual Patent Medicine discount. Per gross, £11 8s., net cash, carriage paid, box free. Export Tin-lined Cases charged 7/6 each, delivered f.o.b. Remittance in full must accompany order. For less than One Gross buyers will please write their Patent Medicine House or Wholesale Druggist.

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Very attractive Show Cards and Counter Bills (with name and address) will be forwarded to all dealers who stock Tikheel, on receipt of label or business card and directions for enclosure.

The following testimony from Agents shows that, notwithstanding the feeling as regards Patents generally, many of the most respected members of the trade will aid in introducing a genuine remedy when put before the public in a manner utterly devoid of Quackery:—

Messrs. PENNEY & BOTWOOD, Pharmaceutical Chemists, Poole:—"We are selling the medicine well; it seems wonderful in its effects." Mr. A. B. ANDERSON, Dundee:—"Tikheel is selling freely, and giving unqualified satisfaction." Mr. J. G. NETTING, Plymouth:—"I have sold many dozens of Tikheel with great satisfaction to customers, who praise it very highly, &c. I feel a pleasure in recommending it." Mr. H. T. DOBLE, Tavistock:—"Tikheel has been very successful in this neighbourhood." Mr. S. NICHOLSON, Fakenham:—"Tikheel gives the greatest satisfaction, acting like a charm. I anticipate increased sales."

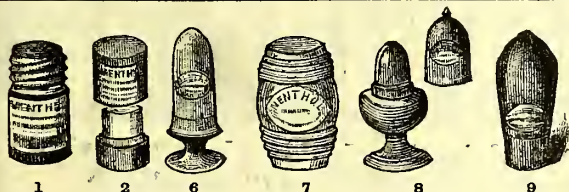
Directions for use accompany each bottle in Spanish, French, and German.

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WARRANTED PURE. A1 BRAND.



Style.	General description.	Price per doz.
1.	Glass bottles with screw caps ...	3/8
2.	In plain willow boxes, lid serving as holder ...	3/6
3.	Glass bottles with screw caps ...	5/4
4.	" " (Menthol on wood mount, serving as holder.) ...	6/9
5.	Glass bottles with screw caps ... (Bullet-shaped cones, wrapped in tinfoil.) ...	6/9
6.	Boxwood, ordinary shape on pedestal ...	*5/
7.	" Barrel shape ...	*6/
8.	" Acorn shape ...	*6/
9.	" Skittle shape ...	*6/
10.	Quite new, 6d., 12 on a card (very saleable) ...	3/6
	"Extra" sized cones, in paper boxes ...	9/
	6d., 12 in a box. 1/-, 6 in a box.	
	* Boxwoods, to screw, 3d. per dozen extra.	
	Loose Cones, all sizes	Quotations solicited.

Of all wholesale houses, or, if direct, 5 per cent. discount for cash with order.

A1 MENTHOL DEPOT, 30 PATERNOSTER SQUARE, E.C.

COCAÏNE HYDROCHLORATE

(SOLUBLE)

Answering to the tests laid down by the Pharmacopœia Committee of the German Pharmaceutical Association (see *Pharmaceutical Journal*, December 27 1884).

PURE ALKALOID, ACETATE, CITRATE, SALICYLATE and other salts of COCAÏNE.

PILOCARPINE and its salts.

FLUID EXTRA CT OF COCA and all other FLUID EXTRACTS (valoids) of the U.S. Pharmacopœia.

ALKALOIDS.

"Permanent" Solutions for Hypodermic Injection. Solable Medicated Pessaries, Suppositories, and Bougies.

Surgical and Medicinal Plasters.

Prices on Application.

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Discovered to be a general Anæsthetic by
Dr. RICHARDSON in 1867.

10. 3 bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.

COMPOUND ANÆSTHETIC ETHER.

For producing local Anæsthesia.

In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.

OZONIC ETHER.

4-oz. and 16-oz. Stopped Bottles, 2s. 6d. and 12s.

PEROXIDE OF HYDROGEN.

First introduced as a Medicine by Dr. RICHARDSON.

ETHYLATE of SODIUM

Dr. RICHARDSON'S Formula, for removing Nævi, &c. In 4-oz. and 16-oz. Bottles, with elongated Stoppers for applying the Caustic, 3s. 6d. and 4s.

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For promoting the Healing of Wounds by the first intention.

In 2-oz. and 4-oz. Bottles, with brush, 2s. 6d. and 4s. 6d.; 16-oz., 12s.

"HABOOL CAPSULES.

Containing pure Vegetable Ivory

In Boxes.

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£200 Reward. PIRACY. £200 Reward.

*The above reward will be paid by the Proprietors of "**LIEBIG'S CHEMICAL FOOD**," or Wine of Phosphates, to any person or persons who shall give such information as will lead to the discovery and conviction of any one making or offering for sale spurious or forged imitations of their proprietary article.*

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The Proprietors therefore request all *Chemists and Patent Medicine Vendors* to RETURN for exchange ANY STOCK they may have of "**LIEBIG'S CHEMICAL FOOD**," or Wine of Phosphates, to either their Wholesale House or direct to them,

12 York Buildings, Adelphi, London, W.C.

In all our Advertisements from this date, the attention of the Public will be called to these alterations, and they will be requested only to purchase such Bottles as have the Name Engraved on the Government Stamps, and the Name in Water Mark on the Labels.

IMPORTANT TRADE NOTICE RESPECTING

TOWLE'S CHLORODYNE

The Original Preparation, as approved by the Medical Profession on account of its known composition and uniform strength.

Retail at 13½d., 2s. 9d., 4s. 6d., and 11s.

We beg to inform our numerous customers, and the Trade generally, that we are **WITHDRAWING THE 4-OZ. AND 10-OZ. DISPENSING** sizes, and, instead, are putting up **AN 11s. RETAIL SIZE**. The wholesale price of the 4s. 6d. and 11s. will be at the same rate per oz. as the old 4-oz. and 10-oz. We shall still continue the undermentioned as usual

LIQ. CHLORODYNE

As originally introduced by A. P. Towle, and free from stamp duty for dispensing. 4 ozs., 4s.; ½ lb., 5s. 6d.; 1 lb., 10s. Also in quantities of 6 lbs. and upwards at special quotations.

TOWLE'S CHLORODYNE LOZENGES AND JUJUBES

In 1, 2, and 4 lb. bottles, at 3s. per lb., and 6d. and 1s boxes. Foiled, lined, and neatly got up for the counter, 4s. 6d. and 9s. per doz. Quantities of 7 lbs. of Lozenges and upwards stamped with chemist's own name free of charge.

**A. P. TOWLE, Chlorodyne Manufacturer,
75 BACK PICCADILLY, MANCHESTER.**



Show Cards and Bills with name on application with instructions for forwarding.

Special Notice to Druggists at Home & Abroad.

The attention of the feeble, and those in failing health, is particularly called to one of the greatest discoveries of modern times, known as

LIEBIG'S CHEMICAL FOOD OR WINE OF PHOSPHATES.

A very Valuable and Important Tonic Remedy, which has proved most successful throughout the World in all cases of Exhaustion.

 OFFICERS CAMPAIGNING AND TRAVELLERS SHOULD NEVER BE WITHOUT IT. 

LIEBIG'S CHEMICAL FOOD, or Wine of Phosphates, is a Nutritious and Invigorating Essence, highly recommended by the most eminent of the Medical Profession for the cure of Nervous Troubles and Mental Complaints, Cough, Asthma, and Incipient Consumption, Nervousness, Weakness and Exhaustion, Dimness of Sight, Shortness of Breath, Headache, Depression, Palpitation of the Heart, Drowsiness, Indigestion, Singing Noises in the Head and Ears, Trembling, Loss of Memory, Want of Appetite, Neuralgia, Pains and Aches, Wasting Diseases, Loss of Energy, Impaired Nutrition, Excessive Drinking, Inactivity of the Brain, with dulness of perception and delusions, and all other low states of the system indicating the presence of disease, which if not attended to in time must become serious.

LIEBIG'S CHEMICAL FOOD is Pleasant to the taste, and is the true strength-giver and health-restorer, nourishing both body and brain, supplying mental and physical power, and nerve and brain food. It is not at all like medicine, being entirely different to anything ever before introduced to the public, and tastes like some balmy, fragrant, and delicious nectar, and never fails. Purifies and enriches the Blood, thereby rendering the skin clear and transparent; sharpens the intellect, strengthens the constitution, re-establishes the health, thoroughly re-vitalizes the system, and is the one unfailing remedy for debility from whatever cause arising. Soldiers on the line of march in India have found it a preventive of Fever.

LIEBIG'S CHEMICAL FOOD, or Wine of Phosphates, in all diseases of the Heart, Chest, Liver, Lungs, Kidneys, Stomach, and Bowels, will be found highly beneficial, and there is scarcely a Disease but what will be benefited by it, and in all human probability cured.

LIEBIG'S CHEMICAL FOOD gives immediate relief. While all other preparations of Phosphorus are slow and uncertain in their action, taking days and sometimes weeks to produce an effect, this CHEMICAL FOOD (Wine of Phosphates) acts at once and gives strength in one hour, and has been known to restore health in less than a week, even after the failure of the usual remedies.

This remarkable preparation not only contains all the materials necessary for the foundation of a new constitution, and for preventing or curing disease, but everything required for forming rich, pure, and healthy blood, muscle, flesh, bone, brain, &c., and contains the very elements of LIFE.

LIEBIG'S CHEMICAL FOOD is a wine without spirit. This Wine is perfectly free from Alcohol, and restores to the system whatever it requires, the absence of which often causes the debility. The secretions are all brought to their natural healthy condition, and physical decay arrested. This Wine is as certain in its action as that water quenches thirst, and its benefits are lasting. It acts like a charm; it might truly be called the WINE OF LIFE.

CAUTION TO CHEMISTS AND MEDICINE VENDORS.

Fraudulent Imitations of LIEBIG'S CHEMICAL FOOD are being sold to Chemists and others. We are determined to protect our property by immediately prosecuting vendors of such imitations. Chemists and Medicine Vendors can protect themselves by seeing that the name "LIEBIG'S CHEMICAL FOOD" is engraved on the Government Stamp, and that the same words are in Water Mark on all Labels.

Chemists will greatly oblige us by giving immediate notice of any offer of a preparation under this name, as we employ no travellers, and do not authorise anyone to solicit orders on our behalf. See offer of £200 on next page.

WHOLESALE TRADE TERMS.—2/9 size, 19/6 per doz.; 4/6 size, 31/ per doz.; 11/ size, 78/ per doz. All net cash with order delivered in London.

LIEBIG & CO., 12 York Buildings, Adelphi, LONDON.



NOTICE.



NEPENTHE.

FERRIS & Co., v. GOODMAN.

NOTICE IS HEREBY GIVEN that by an Order of the Chancery Division of the High Court of Justice, made the 18th day of July, 1884, in the above action, **IT WAS ORDERED** that the Defendant and others be perpetually restrained from selling, or offering for sale, any formula or recipe for "**Nepenthe**," and from otherwise prejudicing the sale thereof by, or injuring the title thereto, or Trade Mark therein, of the Plaintiffs, **Messrs. Ferris & Co., of Bristol**, the registered proprietors thereof.

And it was further ordered that the Defendant do pay the costs of the said Action.

Dated this 12th day of August, 1884.

(Signed) CHILTON & GREEN-ARMYTAGE, BRISTOL,

Solicitors for the said Plaintiffs.

NEPENTHE.

(Prepared exclusively from Opium.)

The safest and best preparation of Opium; produces neither headache, sickness, nor constipation.

Dose, the same as that of Tinct. Opii, P.B.

Price 8s. per pound.

The word *NEPENTHE* being registered under the Trade Marks Act, Messrs. **FERRIS & CO.** have the *SOLE RIGHT* to use it; and the Trade are respectfully cautioned against any infringement of their rights.

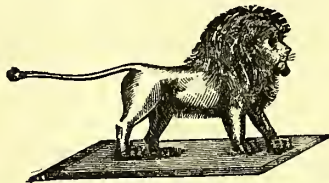
Trade and Wholesale Terms for NEPENTHE upon application.

FERRIS, BOORNE, TOWNSEND & BOUCHER,
MANUFACTURING CHEMISTS, BRISTOL.

AMPUTATION AVOIDED.

THE KNIFE SUPERSEDED.

TRADE MARK.

REGISTERED OVER ALL THE
GLOBE.

TRADE MARK.

REGISTERED OVER ALL THE
GLOBE.

E. BURGESS' LION OINTMENT & PILLS

are the worst and most obstinate cases of Ulcers, Abscesses, Cancers, Tumours, Polypi, Carbuncles, Piles, Poisoned Wounds of all kinds (including Dog and Venomous Bites), and every form of Eruption and Skin Disease; also Ulcerated and Cancerous affections peculiar to Females, without the aid of Lancet or Knife. Numbers have been cured after leaving various London hospitals as incurable, or curable only by amputation.

The following are specimens of Testimonials received. A list of over sixty, each bearing full name and address, is wrapped round each box.

ERSKINE HOUSE, NEAR TIDAL BASIN, VICTORIA DOCKS: Dec. 31, 1883.

DEAR SIR.—I beg to inform you I have not a spot about me, and I believe you are an instrument in the Almighty's hands to do a world of good for your fellow-creatures. Anyone to have seen me this time twelve months, and see me now, would say it was the greatest miracle or mode in skin disease. I have had spots on me for about forty years, have taken medicine of every description, baths, &c., &c., until November, 1882, and nothing ever could touch it. I was then recommended to use the Lion Ointment and Pills as a certain cure, and I found them the masterpiece of the world. I have consulted great men, and they could not touch it. People need not be afraid of using the Lion Ointment: the more it pinches them the more it draws the disease out—only persevere, and the Lion Ointment and Pills will do their work. Now, God bless you in your undertaking.—From yours faithfully,
SILVESTER STONEHOUSE STUART.

LMA ROAD, next door to EAST HILL HOTEL, WANDSWORTH, late 26 BOLTON ROAD, GROVE PARK, CHISWICK, MIDDLESEX: February 7, 1883.

DEAR SIR.—I am happy to forward to you the following testimonial of the great use of your Lion Ointment and Pills. Through the ill-treatment of my husband have been suffering with poisoned blood, and, in consequence, a large abscess formed in my neck, also my limbs affecting my leg. I have, too, been suffering many years from a diseased hip. I consulted several physicians, who said that I should recover unless I had the bone taken out. Last May, 1882, I was advised to use your Lion Ointment and Pills; by so doing I can scarcely describe the benefit I received in a very short time, and I am happy to tell you that they saved my life, and I am now perfectly cured. Hence through my case your wonderful Ointment and Pills may get well known for the benefit of my poor fellow-creatures. You are at liberty to refer anyone to me at any time should you wish.
I am, Sir, yours respectfully, ELIZABETH STILLWELL.
To Mr. E. BURGESS.

PROSPECT HOUSE, AMERSHAM COMMON: June 25, 1881.

SIR.—Please send me by return one box of your Pills. The box of Lion Ointment sent for is for Erysipelas in the face; do you think it suitable? (Most effectual.) I so send me another box of the Lion Ointment. I have enclosed stamps for the same. I have had Ointment from you before through a friend of mine. I had been suffering from a small tumour in the head for some years, and had the advice of medical men, and all said I must have it taken out; but, on applying your Ointment, in a fortnight it drew it out and made a complete cure of it.—Yours respectfully,
To Mr. E. BURGESS. MRS. E. HILL.

ELM LODGE, WIMBLEDON PARK, late 26 BALLANTINE STREET, YORK ROAD WANDSWORTH: January 17, 1881.

DEAR SIR.—Having attended St. Thomas's Hospital for nine months, suffering greatly with a tumour, extending from the back of the ear to the collar bone, affecting the shoulder, and receiving not the least benefit, I was earnestly persuaded to give your Lion Ointment a trial. By so doing I can scarcely describe the benefit I received in a very short time. I am truly thankful to state I am quite well and am able to resume my duties without trouble or inconvenience. I was also attended by several doctors during the five years I have been suffering from the tumour, not having received the slightest benefit. Dear Sir, you are at liberty to publish this, or send anyone to my residence for satisfaction.—I am, Sir, yours most respectfully,
To Mr. BURGESS. MRS. H. GRIFFIN.

[The above was a most serious case. Photographs of the same, uncured and cured, and the Fungus and Diseased Bone drawn away by the Ointment, can be seen on application at 117 High Holborn, W.C.]

7 SHAFTESBURY PLACE, ALDERSGATE STREET, E.C.: May 20, 1882.
SIR.—It gives me great pleasure to add to your numerous testimonials. For four years I suffered with a very bad leg, and attended St. Bartholomew's, the University, and Dalston Hospitals, and various Dispensaries, where they told me it was a cancerous ulcer, incurable, that I must lose my leg. However, being recommended to use your Lion Ointment, I did so, and in three months the cancer was drawn away, and my leg made quite well.—I remain, yours &c.,
To Mr. E. BURGESS. LUCY IBBS.

VERULAM, PORT NATAL, SOUTH AFRICA: March 1, 1881.
SIR.—I feel it my duty to thank you for the wonderful way in which your Lion Ointment has cured my hand of skin disease, which I had endured for over nine years. When I was residing at St. John's Hill, Wandsworth, I purchased a box of your Ointment, and by the end of the fourth week, it had perfectly cured my hand, and I have seen nothing of it since. Previously to applying your Ointment, I had been to my own doctor at Wandsworth with it, and also to several Skin Disease Hospitals in London, but to no avail. They said it could not be cured, and must therefore be endured; but, as I said before, your Ointment has cured it. When I came out here (twelve months ago), I brought some with me, and am glad I did, for I have found it very useful. I gave some to a gentleman who had his legs covered with Natal sores, and could not walk for them, and it has perfectly cured them. I have been obliged to send home to my friends to send me out some, which I expect shortly to arrive, for, as I said before, it is very useful; in fact, cures everything in which I have tried it. If only you had an agent here, I would recommend it to everybody.—I am, dear Sir, yours, &c.,
To Mr. BURGESS. SUSAN S. SMITH.

Various Cancers, Tumours, Diseased Bones, &c., extracted by the LION OINTMENT AND PILLS; also Photographs of Cases Cured are on view at 117 High Holborn. A guarantee of their virtue.

A good sale for this remedy always follows its introduction by proof of its efficacy. Foreign Houses will do well to order samples through their English agents, also supplies of Bills, PHOTOGRAPHS OF CASES CURED, &c., which ALWAYS ensure a connection.

The Ointment is put up in air-tight, grease-proof boxes, and will keep good any length of time in any climate. The Pills are in stout wooden boxes, and also retain their virtue for years. Prices, 1s. 1½d., 2s. 9d., 4s. 6d., 11s., and 22s. each.

USUAL WHOLESALE TERMS.

E. BURGESS,
17 HIGH HOLBORN, and KINGS_GATE ST., LONDON, W.C.
Late WANDSWORTH, S.W.

STOWER'S LIME JUICE SYRUP & CORDIAL

Prepared from their Original Lime Juice Syrup Recipe.

ALSO LEMON JUICE PREPARATIONS AND PURE
LIME JUICE.

The advantages offered over other Makers' Cordials are—

First—That it contains more Lime Juice.

Secondly—That it is entirely free from chemical or other acids, except the natural acid in the pure juice of the fruit.

Thirdly—That it is quite free from the musty taste and smell which predominate in most, if not all, of the Cordials.

It is guaranteed to keep, open or closed, for any length of time in any climate or temperature, and to be entirely free from Alcohol.

A. RIDDLE & CO., 38 COMMERCIAL ST., LONDON, E.

HOLLOWAY'S PILLS & OINTMENT

Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

Professor HOLLOWAY'S Establishment,

78 New Oxford St. (late 533 Oxford St.), London.

And sold at 1s. 1½d., 2s. 9d., 4s. 6d., 11s., 22s., and 33s. each Box or Pot.

Chemists and Druggists selling "Holloway's Pills and Ointment" can, on application to the above address, or to the Wholesale House, with whom they deal, be supplied free of charge with Handbills and Posters with their name and address printed at foot.

Wholesale Terms see List of "Proprietary Articles" in most Price Currents.

INDEX TO ADVERTISEMENTS,
Pages 37 and 38.

MORISON'S PILLS, POWDERS AND OINTMENT.

The most Safe, Efficacious, and Prompt VEGETABLE MEDICINE for Family Use.

COMPOUNDED OF THE PUREST VEGETABLE INGREDIENTS ONLY.

FIFTY-FIVE YEARS OF UNINTERRUPTED SUCCESS.

Pills in Boxes at 7½d., 1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Powders, 1s. 1½d. Ointment, 1s. 1½d. and 2s. 9d.

Wholesale: **BRITISH COLLEGE OF HEALTH, 33 Euston Road, London**

And of the Principal Chemists and Druggists throughout the Kingdom.

Chemists and others who lead
sedentary lives will find a
sure and comfortable
corrective

in

LOWE'S PILLS.
Trade Mark Reg'd. & Red. No. 39,661.

FOR

THE HEAD,
STOMACH & LIVER.

AN EXCELLENT PILL FOR
PROMOTING APPETITE AND DIGESTION.

Sold by all Chemists and Patent Medicine Dealers, in Boxes, at 13½d. and 2s. 9d., each; or post free from the Proprietor, ROBERT HENRY LOWE, Bilston Road, Wolverhampton, upon receipt of the price in Postage Stamps.

COLONIAL AGENTS WANTED.

W. F. SMITH'S TASTELESS DANDELION ANTIBILIOUS PILLS,

Price, 1s. 1½d. and 2s. 9d. per Box.

[Registered.] **TARAX. AND PODOPH.** [Registered.]

A NON-MERCURIAL LIVER MEDICINE, specially useful
to the habitually constipated, and safe for all ages.

Worthy of trade notice. Reliable, and rapidly increasing in
public acceptance.

Urgent caution needed against injurious imitations.

PREPARED ONLY BY

W. F. SMITH, M.P.S.,
280 WALWORTH ROAD, LONDON.

To be had of the usual Houses at Home and Abroad.

SCHIEFFELIN'S

Are made of the best materials; perfectly protected; entirely and quickly soluble; coated while soft; not subjected to the injurious effects of heat in the process of manufacture. The mass is worked to the highest possible degree of uniform intermixture, and subdivided with scrupulous exactness. The coating is an inert,

tasteless, and odourless compound, which is so transparent, colourless, and thin, that the distinctive colour of each pill is revealed through the coat. No sub-coating is used. The solubility of the coating is not impaired by age. All the official pills, as well as any others ordered by the Medical Profession, can be furnished in this form. They can be implicitly relied upon in every respect. The coating, while thoroughly protecting the pill, will not be found to in any way interfere with the action of the drug, and those who have found sugar or chalk-coated pills objectionable, owing to the liability of the coating becoming insoluble by age, will find our coating to dissolve as readily after many years as when first prepared. It, moreover, does not form a hard tough shell as is the case with the ordinary gelatine coating. We claim and believe our Coated Pills to be nearer perfection than any similar goods that have been offered, and guarantee the pills to be as quickly effective as any uncoated pills that can be made.

SOLUBLE

PILLS.

ALLEN & HANBURYS, Plough Court, Lombard Street, LONDON.

A WONDERFUL MEDICINE!

Between thirty and forty years ago a Medicine was introduced to the public and suffering humanity was invited to try the same.

The Proprietor knew from experience that success was certain, but the human breast is so imbued with prejudice, that it forms one of the strongest barriers to break down and the greatest enemy to overcome before any headway can be made towards the mansion of success. Truth has often proved itself to be "stranger than fiction," and it is a fact as solid as truth that

BEECHAM'S PILLS

have now become one of the leading Patent Medicines of the present day. From north to south, and from east to west, they are to be found in the homes of the rich and the poor. All classes of society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.



TRADE MARK.
No. 1416.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

In South Africa BEECHAM'S PILLS have the largest sale of any Patent Medicine ever introduced into that part of the World.

All Patent Medicine Dealers abroad will find BEECHAM'S PILLS one of the most profitable and one of the best selling articles in the Market. The demand for them is regular, and all Foreign Houses who are desirous of getting a First-class Patent Medicine are respectfully requested to get BEECHAM'S PILLS from the leading Wholesale Houses in England (as no business will be done with any Foreign House by the Proprietor direct).

CAUTION.—The Public are requested to notice that the words "BEECHAM'S PILLS, ST. HELENS," are on the Government Stamp affixed to each Box of the Pills; if not on, they are a Forgery.

Prepared only, and Sold Wholesale and Retail, by the Proprietor,

THOMAS BEECHAM,
ST. HELENS, LANCASHIRE, ENGLAND.

In Boxes, 1s. 1½d. and 2s. 9d. each.

N.B.—FULL DIRECTIONS ARE GIVEN WITH EACH BOX

TO BRITISH, COLONIAL, AND FOREIGN CHEMISTS.

RECOMMENDED BY THE FACULTY.

Price—
12/-
per
Gross.

"Manna Cake"
THE SUBSTITUTE
FOR
CASTOR OIL

Bennette

Retail,
1½d. each
(18/- per
Gross).

Registered Trade Mark, No. 22,133.

The mildest and most agreeable aperient known. A first-class Family Medicine for every household. Highly approved of by adults; children take it readily and do not suspect its properties. A most suitable aperient for women at all times, and during the whole course of pregnancy. Does not gripe, and leaves no bad effect as Castor Oil does. A digestive tablet and sweet to the taste.

Dr. McCANN, Orchard-Hey, Liverpool, sent the following letter:—December 22, 1884.—"The aperient action of the 'MANNA CAKE' is decidedly good. Mildly energetic, free from griping, and to be depended on when a mild but certain aperient is needed. It is also an effectual WORM CAKE. Being pleasant to the taste (it is mainly sugar), its easy administration very strongly recommends its use, especially in fever cases, where all excitement should be avoided."

TO COLONIAL AND FOREIGN HOUSES.

Terms, 12s. per gross, less discount for cash against shipping documents. A liberal supply of printed matter is included in this, the consignee issuing such as he thinks best. On orders of 20 gross and upwards at a time printed matter is supplied in any language. On orders over 100 gross arrangements will be made for advertising in any country should advertisements not be running.

EXTRACTS FROM LETTERS.

"Please forward me another 4 gross. Its pleasant taste and easy operation constitute it a favourite medicine in my own, as in other families."

A. T. BORTHWICK, Chemist, Selkirk.

"A Physician in the West of England says he gave Calomel and Jalap in repeated doses without effect, but a MANNA CAKE acted almost immediately."

"The article is selling freely"

W. H. HAYWARD, Chemist, Trowbridge, Wilts.

"Send another 4 gross. My counter sale last week was over 10 dozen."

[Fourth order.] JOHN LEA, Chemist, Folkestone.

"Manna Cake is having an increased sale here, and gives great satisfaction. Many shudder at the idea of taking castor oil, even if it be deprived of taste. Children like them, and I have found in some instances one quite sufficient for an adult."

A. STOOKE, Chemist, &c., Sittingbourne.

"It answers the purpose admirably, and gives great satisfaction. It (or you) may justly be called 'The Children's Friend.'"

H. T. DOBLE, Chemist, Tavistock.

"It is one of our best preparations."

HENRY BECK, Chemist, Albrighton, Salop.

"The Manna Cake is selling well, and gives great satisfaction. It is an excellent preparation."

S. STEPHENS, Chemist, Huddersfield.

[Mr. Stephens has contracted for 150 gross.]

"It is singularly mild and efficacious. I certainly consider it a splendid substitute for Castor Oil."

A. CHRISTIE, Chemist, Newton-Abbot, Devon.

"We find that the Manna Cake sells well, and so far as we can ascertain, gives great satisfaction. It is taking a good place among the established aperient medicines, and is much liked by children, as well as by adults."

DAVIDSON & LESLIE, Chemists, Belfast.

"It is with great pleasure I certify to the efficiency of your Manna Cake. It is tempting in appearance and pleasant to taste, and has given every satisfaction; its merits are indisputable; it has wrought wonders in this neighbourhood."

JOHN SKINNER, Chemist, 558 and 846 Govan Road Govan

WHOLESALE AGENTS.

LONDON—Barclay & Sons; Burgoyne & Co.; Butler & Crispe; Edwards & Sons; Hovenden & Sons; May, Roberts & Co. Maw, Son & Thompson; Newbery & Sons; Sanger & Sons; Sutton & Co.; Thompson, Millard & Co.

PROVINCIAL—W. R. Hedges, Birmingham; Henry Hodder, Bristol; Evans, Gadd & Co. (Limited), Exeter; Battle, Son & Maltby, Lincoln; Brown Brothers & Co., Glasgow; J. H. Blunt & Son, Northampton; Raimes & Co., Edinburgh; W. & R. Hatrick & Co., Glasgow; Glasgow Apothecaries' Co., Glasgow; Ismay & Son, Newcastle-on-Tyne; Evans, Son & Co., Liverpool; John Thompson, Liverpool; Woolley, Sons & Co., Manchester; Goodall, Backhouse & Co., Leeds; Mason & Proctor, Leeds; W. Foggitt, Thirsk; Rainor & Co., York; Smith & Son, Norwich.

COLONIAL—Faulding & Co., Adelaide; Felton, Grimwade & Co., Melbourne; Elliott Brothers, Sydney; Elliott Brothers, Brisbane; The New Zealand Drug Company, Auckland, Christchurch, and Wellington, New Zealand; Smith, Stanistreet & Co., Calcutta; B. G. Lennon & Co., Cape Colony.

WHO ARE PREPARED TO EXECUTE ORDERS TO ANY AMOUNT.

MANNA CAKE is sent out in Handsome Decorated Tin Boxes, suitable for display on the Counter.

SHOW TABLETS SUPPLIED FREE ON APPLICATION.

Manufactured by BENNETTE & Co., 8 & 10 Station Street, LEICESTER.

London Warehouse—11 LONG LANE, E.C.

Please ALWAYS address BENNETTE & CO.



FREEMAN'S CHLORODYNE



THE ORIGINAL AND ONLY TRUE.

Discovered and Invented by **RICHARD FREEMAN** in 1844.

IS THE GREATEST MEDICAL DISCOVERY OF THE PRESENT CENTURY.

It is the best known remedy for COUGHS, CONSUMPTION, WHOOPING COUGH, BRONCHITIS, and THMA.

It effectually checks and arrests those too often fatal diseases—DIPHTHERIA, DIABETES, FEVER, CROUP, MEASLES, &c.

It acts like a charm in DIARRHŒA, and is the only known Specific in CHOLERA and DYSENTERY.

It is the only Palliative in RHEUMATISM, GOUT, CANCER, TOOTHACHE, MENINGITIS, &c.

IT effectually cuts short all attacks of EPILEPSY, HYSTERIA, PALPITATION, CONVULSIONS, and SPASMS.

IT rapidly relieves pain from whatever cause, allays the irritation of Fever, soothes and strengthens the system under exhaustive diseases, restores the deranged functions, stimulates healthy action of the secretions of the body, gives quiet and refreshing sleep, and marvellously prolongs life. It may be taken by old and young at all hour and times.

IT is extensively used by Medical Men in their official and private practice, at home and abroad, who have given numerous written testimonials of its wonderful efficacy.

IMPORTANT CAUTION.—Four Chancery Suits terminated in favour of **FREEMAN'S ORIGINAL CHLORODYNE** and against Collis Browne and Davenport. Lord Chancellor Selborne, Lord Justice James, and Lord Justice Mellish condemned their proceedings, and decreed them to pay all costs. Reports of the suits in "Times," January 12 and July 13, 1864, and April 29 and July 24, 1873, and "British Medical Journal," May 3, 1873.

Sold in Bottles, 1s. 1½d.; 2 oz., 2s. 9d.; 4 oz., 4s. 6d.; 8 oz., 9s.; half pints, 11s.; and pints, 20s. each; and for dispensing only bottles, fl. 8 oz. 8s., and fl. 20 oz. 18s. (in weight one pound and a half).

Purchasers are cautioned not to have palmed upon them any substitute. There are other articles bearing the name of Chlorodyne, but quite devoid of its wonderful effects. See that the Trade Mark, "The Elephant," is on the wrapper, &c., and that the words **Freeman's Original Chlorodyne** are engraved on the Government Stamp, which is the only true Chlorodyne.

SOLE MANUFACTURER—

RICHARD FREEMAN, PHARMACIST, 70 KENNINGTON PARK ROAD, LONDON, S.E.

WHITE & CO., SUCCESSORS TO **E. GOULD & SON,** 20 BISHOP'S ROAD, LONDON, W.

(Mr. WHITE many years Manager to Messrs. E. GOULD & SON at above address), (ESTABLISHED 1863.)

MANUFACTURERS OF HOMŒOPATHIC MEDICINES & SPECIAL PREPARATIONS.

Books, Medicines, Cases, Cardboard Goods, Bottles, Corks, and all Material required in Homœopathy supplied in any quantity at lowest possible prices consistent with purity of manufacture and superior quality.

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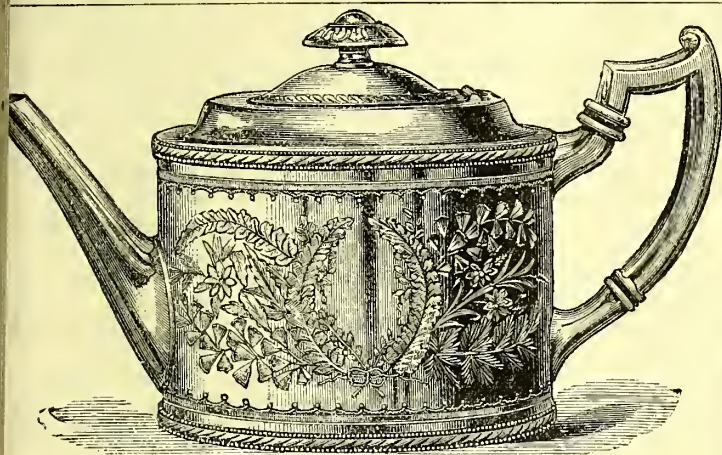
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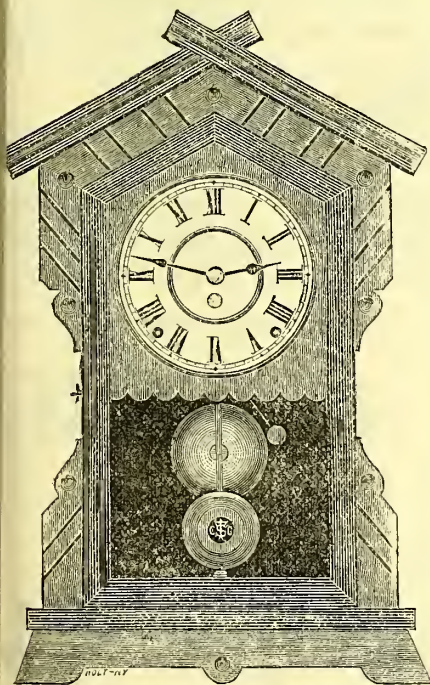
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TAYLOR'S PATENT SUPER A1 FLAX LINT

Is produced only by the Patentee,

W. G. TAYLOR, Charford Mill, BROMSGROVE.

Packages having the Patentee's Signature alone are genuine.

W. G. Taylor

W. G. TAYLOR begs to inform the Trade that he is the Sole Manufacturer of the above celebrated Lint, and that he has no connection whatever with any other maker. Supplied WHOLESALE, direct from the Works; or by—

S. MAW, SON & THOMPSON, 7 to 12 Aldersgate Street, LONDON, E.C.

Taylor's Super A1 Flax Lint,

3s. 8d. per lb.

Maw's Super Quality Surgeons' Lint

2s. per lb.

Maw's Superior Hospital Lint,

1s. 9d. per lb.

Maw's No. 2 Hospital Lint,

1s. 6d. per lb.

SPECIAL QUOTATIONS BY THE CWT.

S. MAW, SON & THOMPSON, LONDON.



THE LIVERPOOL PATENT LINT CO.,
MANUFACTURERS OF
PATENT FLAX & COTTON LINTS,
WHITE AND GREY BANDAGES,
ABSORBENT AND CARDED COTTON WOOLS, STYPTIC TOW.
MARK STREET MILLS,
NETHERFIELD ROAD NORTH, **LIVERPOOL.**

KING'S HOP BITTERS
(THE KING OF PICK-ME-UPS)

Are old-established, registered, and protected under the Trade Marks Act, as having been prepared before August, 1875. They are an excellent aromatic tonic, palatable, and command a good sale. Put up in bottles to retail at 1/14 and 2/3 per bottle, also in packets containing ingredients for making the same at 7/4d. and 1/11 per packet.

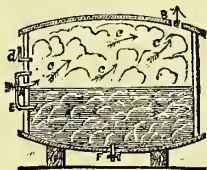
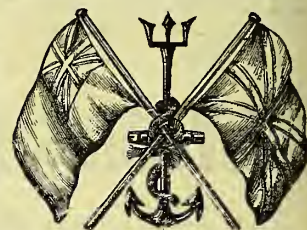
Show Tablets and Counter Bills with testimonials supplied. Each Bottle and Packet bear, as Trade Marks, "King Alfred's Head" and "British Flags." Beware of Infringements.

MANUFACTURED ONLY AT

King's Hop Bitter Depot, Croydon.

Special agents appointed in all parts. Move wanted for unrepresented localities. Obtainable direct from ALFRED KING & CO., who will forward all particulars on application.

London Agents, Messrs. Newbery & Son, 1 King Edward St., Newgate St., E.C.



NEW METHOD OF MAKING VINEGAR
BY THE REVOLVING APPARATUS
(Michaelis' Patent).

For further particulars

See the Chemists' and Druggists' Diary, 1884, page 274,
OR APPLY TO

PAUL ROTHERMEL,
105 (late of 27) LEADENHALL ST., LONDON.

IMPORTANT TO CHEMISTS AT HOME AND ABROAD.

The DORIC CURES are Safe, Sure, Speedy Specifics.

DORIC EYE LOTION, guaranteed to quickly cure red, sore, inflamed eyelids and watery eyes.

DORIC WART, CHILBLAIN, CHAP, and CORN CURE softens and whitens roughest hands and skin. It is harmless, sweet-smelling, and beneficial.

DORIC NEURALGIA CURE is unsurpassed and easily applied.

DORIC HAIR RENEWER acts on the hair like magic, and quickly converts fine down into strong, healthy hair.

DORIC TOOTHACHE CURE and **PREVENTATIVE** is a liquid, and contains no acid or injurious compound. It cleans the teeth, refreshes the mouth, hardens the gums, and arrests decay.

ALL 1/11 AND 2/9 RETAIL.

CHEMISTS who write for particulars and mode of doing business will not regret doing so. Address—

DORIC CURATIVE CO., 20 HIGH HOLBORN, LONDON,

Agents in Ireland—Messrs. Davidson & Leslie, Castle Place, Belfast.

Scotland—Messrs. Raimes & Co., Edinburgh.

Agents wanted in English towns, the Colonies, and abroad. Exceptional terms given.



GIBSON'S

DELECTABLE JUJUBES, VOICE JUJUBES, AND GLYCERINE PASTILLES

Put up in 4-lb. Decorated Tins with Glass Lids, **TINS FREE**, are now being inquired for by buyers from all parts of the world. They are not surpassed in quality by any maker, and give entire satisfaction.

MEDICATED and HIGH-CLASS LOZENGES, of every kind.

Sent out in 2-lb. or 4-lb. Bottles, Bottles Free; or in Tins, from 10 lb. upwards.

LIME JUICE TABLETS.

PURE MALT TABLETS.

ACID DROPS, AND BEST QUALITY BOILED SUGARS OF EVERY KIND.

GIBSON'S ORIGINAL CHLORODYNE LOZENGES.

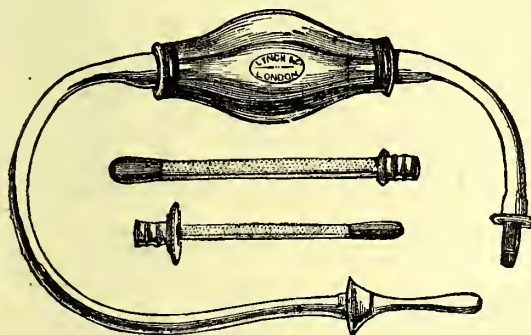
PENNY SUGAR WORM CAKES, suitable for either children or adults. Have an immense sale, keep in any climate, and please everybody. Manufactured by

ROBERT GIBSON, Carlton Works, Hulme, Manchester, and 1 Australian Avenue, London.

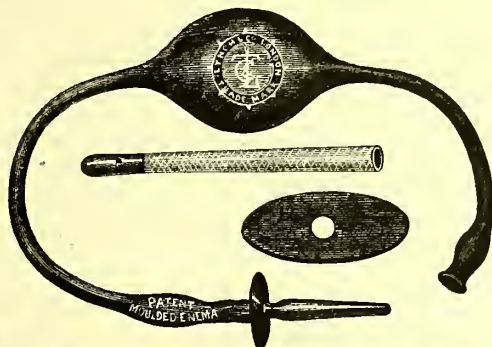
Price Lists sent on application. Our Goods can be bought through any Wholesale or Export House in London. Indents should be marked "Gibson's."



LYNCH'S



No. 436.



No. 425 D.

ENEMAS.

SUBJOINED ARE PRESENT PRICES:

		£	s.	d.
433A.	HIGGINSON'S, unvarnished india-rubber, with rectum pipe only, in slide cedar boxes	per doz.	1	5 0
433B.	Ditto, with elastic-gum vagina pipe and leather shield	"	1	10 0
434.	Ordinary Higginson's, barrel shape, with bone rectum pipe, elastic gum vagina pipe, to plug on, and patent leather shield, in slide cedar box	per doz.	1	12 0
434AA.	Ditto, fitted with vagina pipe with reversed current	"	1	16 0
434A.	Ditto, ditto, with disconnecting mounts	"	1	14 0
435C.	LYNCH'S (Higginson's principle), black, green, red or white india-rubber, requiring no metal mounts, in one continuous piece, warranted not to split, fitted with vulcanite rectum pipe, in slide cedar box	per doz.	1	10 0
435D.	Ditto, with elastic-gum vagina pipe, and leather shield, in slide cedar box	"	1	15 0
436.	LYNCH'S FAMILY (Higginson's principle), fitted with bone bulb pointed rectum pipe for adults, elastic-gum vagina pipe, and elastic-gum rectum pipe with bone shield for children, in mahogany box	per doz.	2	8 0
437.	Ditto, in slide cedar box	"	2	2 0
437A.	LYNCH'S PERFECTION, in mahogany box	"	2	16 0
437B.	Ditto, in slide cedar box	"	2	10 0
437C.	Ditto, in superior mahogany box, with lock and key	"	3	12 0
437D.	Ditto, in oval boxes of cloth and leather	"	2	15 0
437E.	LYNCH'S COMPLETE HOUSEHOLD SYRINGE, consisting of Higginson's Enema with disconnecting mounts, fitted with bone bulb-pointed rectum pipe for adults, elastic-gum rectum pipe with bone shield for children, elastic-gum vagina pipe, and bone pipes for ear, eyes, and nose, in mahogany box	each	0	7 6

Discount—10 per cent. Monthly, 5 per cent. Half-yearly Account.

SPECIAL QUOTATIONS FOR 12 DOZEN AND UPWARDS.

LYNCH & CO.,

Wholesale and Export Chemists and Druggists' Sundriesmen,
Surgical Instrument Makers,

DEALERS IN PATENT MEDICINES, PERFUMERY, AND PROPRIETARY ARTICLES,

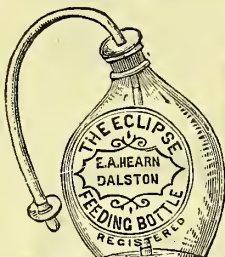
ALDERSGATE STREET, LONDON, E.C.

Australian Branch—15 Vaughan's Chambers, 48 Queen Street, Melbourne.

SOLE AGENT, MR. RIVERS LANGTON.

Feeding Bottles.**THE "ECLIPSE."**

Fitted with Boxwood or China topped Corks.



White Fittings, 30s. per gross; best Black Fittings, 36s. per gross.

Fitted with best Screw Glass Stoppers, 6s. per gross extra. The above are put up in one dozen wood-partitioned boxes.

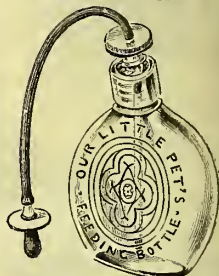
Spare Bottles or Fittings at lowest prices. Liberal discount to large buyers.

**HEARN, RIDDELL & CO.,
GLASS BOTTLE****MANUFACTURERS,****381 KINGSLAND ROAD, LONDON, E.**

GLASS BOTTLES of EVERY DESCRIPTION, either PLAIN or STOPPERED, made in WHITE, BLUE, AMBER, ACTINIC GREEN, or any other colour required.

**SCREW NICKEL CAPPED POMADES, HONEY POTS,
JELLY JARS, &c., &c.****SPECIAL ATTENTION GIVEN TO QUALITY.***Quotations Post Free to any part of the world on Application.***The above will be found the BEST and CHEAPEST
House in the Trade.****"OUR LITTLE PETS"
Feeding Bottle.**

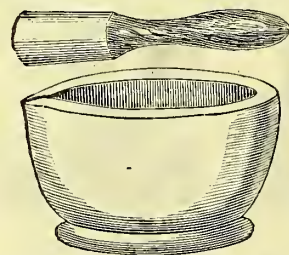
Fitted with best Porcelain Caps or Screw Glass Stoppers.



White Fittings, 78s. per gross; Black Fittings, 84s. per gross.

Each Bottle, with two Brushes, in handsome cardboard box, bearing our Copyright Label.

Spare Bottles or Fittings at lowest prices. Liberal discount to large buyers.

**WEDGWOOD****ACID-PROOF****MORTARS AND PESTLES.**

ALSO MANUFACTURERS OF

Funnels, Evaporating Pans, Electric Battery Fittings, Bed Pans, Urinals, Medicine Spoons, Physic Cups, Sick Feeders, Bleeding Basins, Medicine Measures, Eye Cups, Inhalers, Nursery Lamps, Wall Tiles, &c.

*Price List on application. Special quotations for large orders. Every article stamped "Wedgwood."***JOSIAH WEDGWOOD & SONS, ETRURIA, STOKE-ON-TRENT.**

LONDON ROOMS: ST. ANDREW'S BUILDINGS, HOLBORN CIRCUS.

**E. BENTLEY & SONS'
NEW OPAL GLASS POTS,**

FOR DISPENSING TOOTH PASTE, COLD CREAM, & OTHER PURPOSES.

PRICES:-

Lip Salves	$\frac{1}{4}$ oz.	$\frac{1}{2}$ oz.	$\frac{3}{4}$ oz.	1 oz.	1 $\frac{1}{2}$ oz.	2 oz.	3 oz.	4 oz.
	1/4	1/4	1/4	1/8	1/8	1/10	2/1	2/8

3/4 per doz.

E. BENTLEY & SONS, DRUGGISTS' SUNDRYMEN,

Manufacturers of Ship and Family Medicine Chests of every description.

All kinds of Bottles for Chemists' and Perfumers' use kept in stock or made to order.

14 TABERNACLE ST., & 1 & 2 HILL ST., FINSBURY, LONDON, E.C.**SHOP BOTTLES & JARS****WITH VITRIFIED (burnt in) LABELS***(Black letters on a ground of pink or white enamel).*

Narrow-mouthed and Wide-mouthed Bottles, well stoppered; Capped and Tube-stoppered Oil Bottles; Syrup Bottles, with Plug Stoppers of Dark Blue or White Opaque Glass; Lozenge Jars with Cut Glass Knobs; Cut Perfume Bottles, Round, Oval, and Square; Shop Jars of Best Porcelain, thoroughly Greaseproof. Labels Indestructible and of Elegant Appearance, forming an even surface with the Glass or Porcelain. PRICE LIST ON APPLICATION. A Large Variety of Samples on Show at

H. POTHS & CO.,**4 SUGARLOAF COURT, 50 LEADENHALL STREET, LONDON, E.C.**

Depot of the PATENT SAFETY SAMPLE AND PARCELS POST BOX CO., LIM.

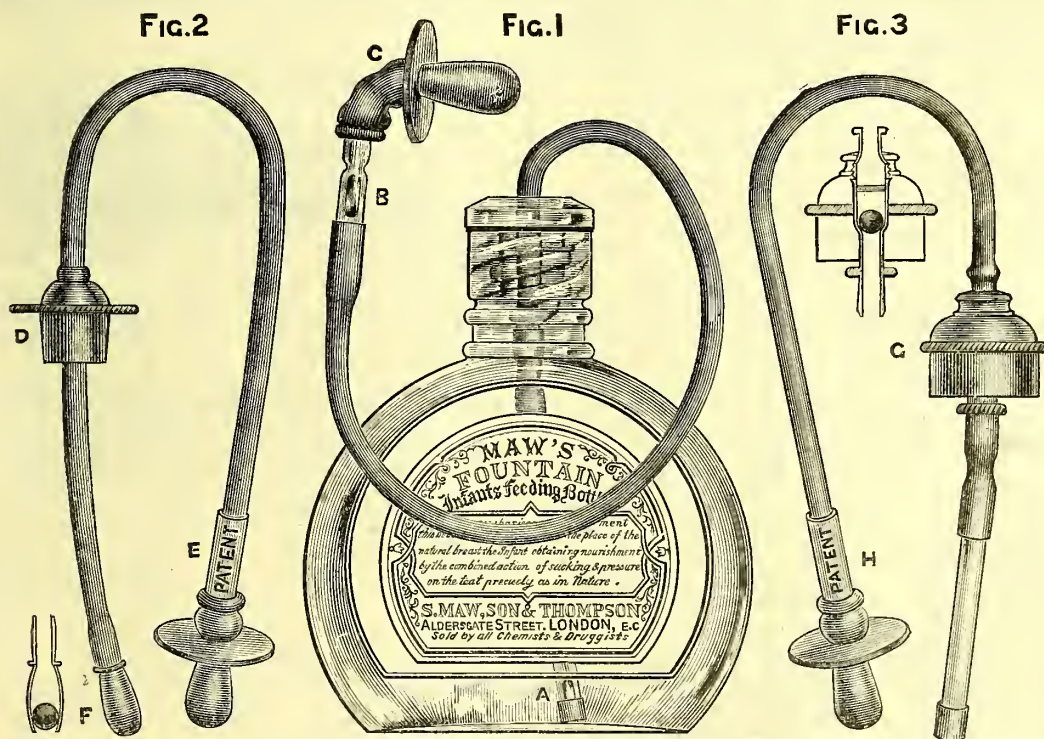
Price List on application.

Amongst others the following have been supplied with these Bottles and Jars:—Bradford & Co., Bridlington Quay; Birks, N. & W. H., Adelaide S. A.; Buchner, M., 149 Honndsditch, London, E.; Brown, Alex., Dunoon, N. B.; Corry, T. C. S., Dr., Belfast; Cottingham, W., Lincoln; Croyden, E. H., Newcastle-under-Lyme; Davis, Hayton, High Harrogate; Donovan, Richard, Blackrock, near Dublin; Durrant, C. R., Hertford; Hall, Ralph, 552 Kingsland Road, London, N.; Hill, J. B., Auckland, N. Z.; Jenkins, J. T., Nottingham; Jones & Co., Christchurch, N. Z.; Lofthouse, J., Flackwood; Pasmore, W. F., 820 Regent Street, London; Potts, Charles, Ilkeston; Proctor, Wm., & Son, Newcastle-on-Tyne; Roberts, D. P., Croydon, Surrey; Robinson, C. J., Streatham, London; Robinson, H., Balden, near Leeds; Southern, J., Manchester, opposite the Assize Court; Taylor, P. N., 14 Basinghall St., London, E.C.; Twinberrow, W. & Son, 80 Wigmore Street, London, W. Waterall, Geo., & Sons, Nottingham.



MAW'S PATENT FOUNTAIN FEEDING BOTTLES FOR INFANTS.

Retail, 1s. 6d. & 2s. 6d. each. Wholesale, 12s. 6d. & 20s. per dozen.



Unless ordered to the contrary, MAW'S FOUNTAIN FEEDING BOTTLES are now always supplied as Fig. 1, with Glass Screw Stoppers, and fitted with Glass-Valve Tube (A), Registered Glass-Valve Union (B), and Registered Curved Indiarubber Teat (C).

These Bottles are PERFECT IN ACTION, and are STRONGLY RECOMMENDED.

MAW'S FOUNTAIN FEEDING BOTTLES can be had with the OLD FITTINGS as formerly, if so ordered, at the same prices as Fig. 1.

Fig. 2 represents the (1/6) old fittings—Metal Plug-Stopper (D), Patent Coupling-Piece (E), and Metal Ball-Valve (F).

Fig. 3 represents the (2/6) old fittings—Metal Cap with Ball-Valve inside (G), and Patent Coupling Piece (H).

S. MAW, SON & THOMPSON, LONDON.

THE PROPRIETORS OF THE
"W" BRAND
DISPENSING BOTTLES

Beg to call the attention of their numerous supporters to their correct

REGISTERED TRADE MARK,



TRADE MARK.

as they learn with regret that inferior bottles have been shipped with a Mark imitating theirs. The Proprietors continue to supply their bottles only through the best London Wholesale Houses, as heretofore, and give notice that they will take action against makers using a colourable imitation of their Trade Mark.

8 ozs., 10 ozs., 13 ozs., 20 ozs.
Fluid, this shape bot.



FRENCH SCREW GLASS POTS & BOTTLES,
WITH METALLIC NICKELLED CAPSULES.

The above new method (first introduced by G. V. De Luca) excels all others for neatness and elegance, and is specially adapted for export. Made in various new designs. Spécialité for Bottles for all kinds of Confectionery, Essences, Manufacturery and Sundries. N.B.—Beware of imitations sold at cheap prices, the capsules being a mixture of lead or tinned iron.

Manufacturer of the GLASS POMADE POTS WITH GLASS COVERS, in Opal White and White Flint in all sizes.

G. V. DE LUCA, French Flint Glass Manufacturer, 6 and 7 Long Lane, LONDON, E.C.
WHOLESALE AND EXPORT AGENTS—S. MAW, SON & THOMPSON, 7 to 12 ALDERSGATE STREET, LONDON, E.C.

Illustrated Catalogue for Patent Screw Capsule on application.

DISPENSING BOTTLES & PHIALS
MADE OF PURE METAL.

I. ISAACS & CO., Glass Bottle Manufacturers,

Beg to state that they have greatly improved the quality of their Bottles, and supply them at the following greatly reduced prices—
Green FLINT, Flat or Oval, Plain or Graduated.

3 and 4 ounce ..	8/ per gross.	12 ounce ..	13/ per gross.
6 and 8 ounce ..	8/6 "	16 ounce ..	16/ "
White Moulded Phials of Superior Quality.			
1/2 ounce and under	4/ per gross.	1 1/2 ounce ..	5/ per gross.
1 ounce ..	4/6 "	2 ounce ..	6/ "
3 ounce ..		7/6 per gross.	

Plain, or Graduated to Teaspoons.

All the above are first-rate quality. In ordering, please say "PURE METAL BOTTLES." A Sample Bottle of any kind forwarded free on application. Country packages, 1/ each. Bankers, London and Westminster. Established upwards of 50 years.

I. ISAACS & CO., Glass Bottle Manufacturers,
25 Francis Street Tottenham Court Road, London.



DRUGGISTS' WAX,
BOTTLING WAX
LETTER WAX,
PACKING WAX,

"BEE" BRAND
SOLD BY ALL
Wholesale Druggists
Sundrymen.

SOLE MANUFACTURERS—

GEORGE WATERSTON & SONS,
LONDON AND EDINBURGH

GREAT REDUCTION IN PRICE OF GLASS BOTTLES, SYPHONS, ETC

ESTABLISHED TWENTY-FIVE YEARS.

ROUND SHOULDER OR LIME JUICE BOTTLES.

1/2 1 2 3 4 6 8 10 12 16 20 oz.
2/9 3/3 4/6 6/ 6/6 7/6 8/6 14/ 15/ 20/ 22/ per gross

VIALS (Long, Medium, or Short Series).
1/2 oz., 2/8; 1 oz., 3/; 2 oz., 4/6 gross. Good quality.

KALI (CONFECTIONER'S) BOTTLES.
4 6 8 10 12 20 oz.
6/ 7/6 9/ 14/ 17/ 24/ gross.

GLASS SYRINGES (Best Quality).
1/2 oz., 14/; 3/4 oz., 18/; 1 oz., 27/; 2 oz., 49/ gross.

All and every kind of Bottle made, and prices given for any particular pattern.

FEEDING BOTTLES: [SPECIAL PRICES ON APPLICATION]

Best White Glass, China Tone, White India Rubber Fittings, 27/ gross; Black ditto, 24/ gross.

Curved, with Screw Caps, White India Rubber Fittings, 30/ gross; Black India Rubber Fittings, 42/ gross.

N.B.—The fittings for above Screw Feeders are made in Glass (no Metal or Earthenware).

SYPHONS: Block Tin Mounts, best in the trade, 19/ doz. f.o.b. Antwerp.

J. & J. LANG, Glass Works, Alsace and Lorraine.

Also at 37 QUAI FLAMAND, ANTWERP, and FALKENAU, BOHEMIA.

Show Rooms at 82 HATTON GARDEN, LONDON, E.C.; and 28 Rue Notre Dame de Nazareth, Paris.

ESTABLISHED 1842.

TOLLAY, MARTIN & LEBLANC.

7 RUE CADET, PARIS,

Makers of DR. EGUISIER'S

IRRIGATOR

For Enemas, Injections, Irrigators Ascendant, Douches, enabling sick

persons to use in bed, without changing their places, or putting

themselves to any other inconvenience.

Sole Agent, G. V. DE LUCA. 6 and 7 Long Lane, London, E.C.



BEST WHITE FLINT OVAL DISPENSING OR PERFUMERY BOTTLES.

2 3 4 6 8 oz.
6/ 7/ 8/6 9/6 10/6 per gross.

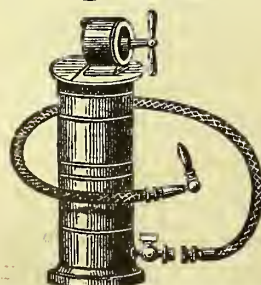
BEST WHITE FLATS.

2 3 4 6 8 oz.
6/ 7/ 8/6 9/6 10/6 per gross.

PILL BOTTLES (Metal Screw Caps).
1/2 oz., 9/; 1 oz., 10/; 2 oz., 13/; 3 oz., 16/ gross.

POMADE BOTTLES (Metal Screw Caps).
1 oz., 10/6; 2 oz., 14/; 3 oz., 18/; 4 oz., 21/ gross.

Our Metallic Capsules are superior to anything in the Market.



PRIZE MEDALS, INTERNATIONAL EXHIBITIONS.



LONDON, 1862.



PARIS, 1875.



PHILADELPHIA, 1876.



PARIS, 1878.



SYDNEY, 1879.



MELBOURNE, 1880.

KILNER BROTHERS,

MANUFACTURERS OF

GLASS BOTTLES,

VAN BOXES, CASES, &c.,

Respectfully invite attention to the following Goods that they supply:

- DISPENSING BOTTLES**—All kinds in GREEN and WHITE FLINT GLASS
- FEEDING BOTTLES**—"OUR BABIES' BOTTLE," in GREEN and WHITE GLASS.
"OUR DARLINGS' BOTTLE," in WHITE GLASS.
Fitted in a variety of styles.
- PERFUMERY BOTTLES**—Many kinds in WHITE FLINT GLASS.
- CHEMISTS' BOTTLES**—Numerous varieties in PALE GREEN, BLUE, and WHITE FLINT GLASS.
- SUNDRIES**—IN GLASS AND EARTHENWARE; CORKS; PARCELS-POST BOXES, &c.

MINERAL WATER MANUFACTURERS

Will find that we can serve them well, both in quality and price, and we solicit Orders for the coming season.

NOTICE.

We have been appointed Agents for E. B. ESTES & SONS, Turned Wood Box Manufacturers, of NEW YORK, and invite Orders and Correspondence for all their goods.

Home Buyers are invited to send for our "MONTHLY CIRCULAR", and Foreign Buyers for our "QUARTERLY EXPORT PRICE CURRENT (Illustrated)," both of which contain full particulars of all our goods.

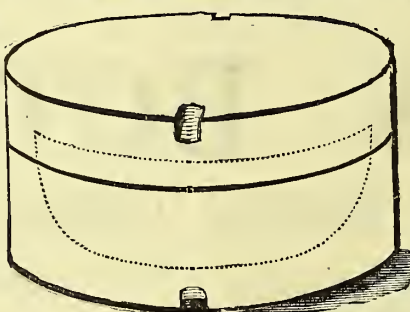
KILNER BROTHERS,
No. 3 GT. NORTHERN GOODS STATION, KING'S CROSS, LONDON.

TOOGOOD'S NEW REGISTERED EARTHENWARE COVERED POTS

ARE CLAIMED TO BE THE MOST PERFECT AND CONVENIENT YET OFFERED TO
THE TRADE, AND POSSESS THE FOLLOWING ADVANTAGES:—

1st.—An India-rubber Band passed vertically over the pot is kept in its place by the notches, and effectually secures the lid; for travelling this supplies a want greatly needed.

2nd.—The Covers being made quite flat, labels can be affixed with ease, and without creasing.



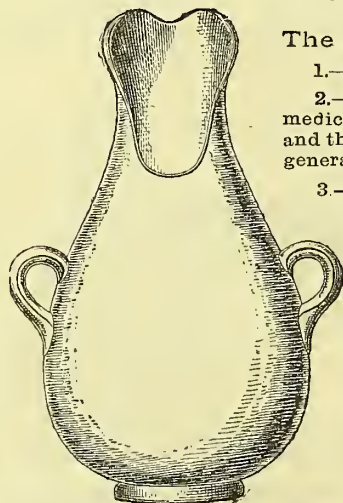
3rd.—The inside of the Pots being rounded or egg-shape, the contents can be entirely removed without waste.

4th.—Great attention has been paid to insure accuracy of contents.

PRICES. { $\frac{1}{8}$ /- 18/- $\frac{1}{4}$ /- 18/- $\frac{3}{8}$ /- 18/- $\frac{1}{2}$ /- 20/- 1 22/- $1\frac{1}{2}$ /- 24/- 2 27/- 3 34/- 4 42/- 6 54/- 8 oz. 66/- per Gross.

DR. SPENCER THOMSON'S ORO-NASAL STEAM INHALER. (PATENTED.)

For use in the Relief of Asthma, Hay Fever, &c.



The advantages of this Inhaler are:—

- 1.—Simplicity and Cleanliness.
- 2.—The application of the vapour, simple or medicated, to the membranes not only of the mouth and throat but also of the nostrils and air passages generally.
- 3.—Perfect ease of inhalation, contrasting with the efforts required in the use of Oral Inhalers in general.

PRICES.

In Terra Cotta48s. dozen
In White Earthenware ..33s. "

PRESS OPINIONS.

"For the relief of Asthma, Hay Fever, &c., this Inhaler offers particular advantages."

British Medical Journal, October 25, 1884.

"It is an improvement on the old kinds."

Chemist and Druggist, November 15, 1884.

"This Inhaler has much to commend it to popular use."—*Knowledge*, November 28, 1884.

THE WESTMINSTER FEEDING BOTTLE.

(SCREW GLASS STOPPER.)



THE 1s. WHITE GLASS—
WHITE FITTINGS .. 7/3 DOZEN.
BLACK FITTINGS .. 8/6 "
THE 6d. GREEN GLASS—
WHITE FITTINGS .. 4/- "
BLACK FITTINGS .. 4/9 "

MANUFACTURED BY

WILLIAM TOOGOOD,

WHOLESALE GLASS BOTTLE MANUFACTURER & DRUGGISTS' SUNDRYMAN,
35, 36, & 37 MOUNT STREET, GROSVENOR SQUARE, LONDON, W.

WILLIAM TOOGOOD'S REVISED PRICE CURRENT of Glass Bottles, Measures, Earthenware,
Druggists' Sundries, &c., will be forwarded post free upon application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.



BREFFIT'S



(LIMITED)

AIRE & CALDER BOTTLE CO.

GLASS BOTTLES.

GLASSWARE SUNDRIES.

PATENT

AERATED WATER BOTTLES.

VAN BOXES, CASES, & CRATES.

PATENT MEDICINE PROPRIETORS

Will find we have special facilities for producing great variety of Bottles in many attractive and useful shapes.



PERFUMERY FACTORS



We supply some 9,000 various patterns in clear Crystal Glass, plain or stoppered.
Lettered Bottles, with Name, Address, Trade Mark, &c.

PATENT CAPPED POMADES

Fitted with Glazed Earthenware Corrugated Edge Caps, forming clean, effectual, and everlasting stopper, in
1, 1½, 2, 3, 4, 6, 8, 10, and 12 oz. sizes, in 1 doz. Card or Wood Boxes.

Customer's Name, Address, Trade Mark, &c., printed on 5-gross lots.

GLASSWARE SPECIALITIES:

CHLOROFORM, ETHER, OIL & SYRUP BOTTLES, CHEMICAL APPARATUS, JARS, &c.

SAMPLES, PRICES, ETC., UPON APPLICATION.

OFFICES AND SHOW-ROOMS—

83 UPPER THAMES STREET, LONDON.

ADDRESSED TO CHEMISTS AND DRUGGISTS. AGENTS WANTED.

**DR. HENRY A. MARTIN'S
PURE RUBBER BANDAGES (GENUINE),***For the Radical Cure of Varicose Veins, Weakness, Ulcers, Eczema, and other Diseases of the Leg, and
for Injuries of the Knee and Ankle Joints.*

y far superior to any of the numerous imitations; are now being sold at less cost than those of other manufacturers

TESTIMONIAL:

TO MESSRS. KROHNE & SESEMANN.

From EDWARD C. ANDERSON, M.D., M.A., CANTAB.,

TOM LAW, DARLINGTON, November 5th, 1880.

GENTLEMEN,—I have the greatest pleasure in acceding to your request, that I should, from my experience of the Martin's Bandages, testify respecting their excellence.

My knowledge of the quality of Bandages of English make is limited; for having, about fifteen months back, applied bandages sent to me from this source, and noting the evident irritation and discomfort produced by them—so great, indeed, that each patient soon discontinued their application—I ceased to recommend and use them.

In April of this year, I for the first time used the original Martin's Bandage, and since then I have applied them and none else to the limbs of nearly twenty persons suffering from a variety of complaints, such as ulcers of the leg of old standing, which had resisted all treatment for more than fifteen years; varicosities (the unsound leg of one patient, a man, measured 25 inches round the calf, against 16½ inches, the size of the sound leg; and his condition was such that, before coming under my care, it had been by his former attendant seriously debated whether or not the leg should be amputated to save life. This man goes about wearing a 21-foot Bandage, and the calf of the unsound leg now measures 18 inches); erysipelas, oedema, rachitis, &c.

Suffice it that all, both young and old, have been enabled to wear them with comfort; most of the cases under treatment have been cured, all benefited, and many, although well, continue to wear them on account of their safety and the support they give rise to.

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I am, &c.,

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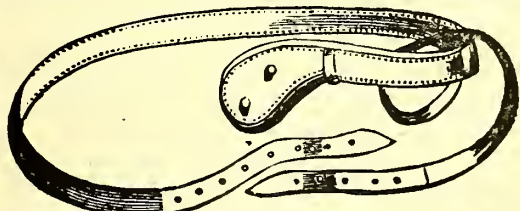
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Pink Carbolic Acid, soluble in water, 1/6 per gallon. Carbolic Acid, all kinds, from 1/ per gallon. Grease, Chloride of Lime, Oils, Carbolic Soap, &c. London Foot and Sewage Mannre, 35/ per ton. Special quotations for Shippers and large quantities.

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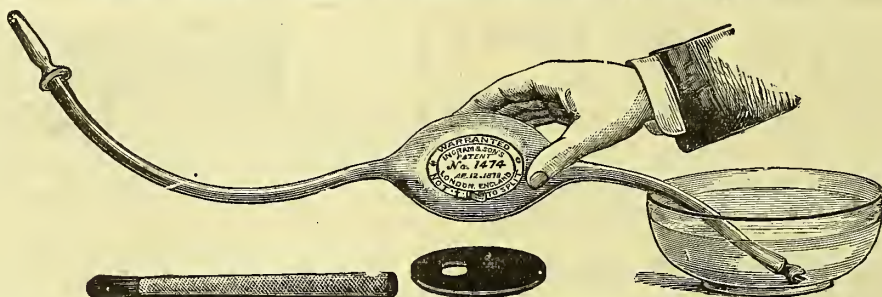
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(BY ROYAL LETTERS PATENT).

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INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** over all others has given rise to **VARIOUS IMITATIONS**, and it has become imperative that the Patentees should, in order to **PREVENT DECEPTION**, explain the **PROCESS OF MANUFACTURE OF THEIR ENEMA** and the **MODE OF MANUFACTURE OF IMITATIONS** thereof, as they have **UNDENIABLE PROOF** that **INFERIOR ENEMAS** are positively **BEING SOLD** as their "**ADVERTISED**" **PATENT SEAMLESS ENEMA**.

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INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with **IMPROVED VALVES**, which prevent the admission of air with the fluid and **CAN** at any time **BE REPAIRED**, if necessary.

CAUTION.—Imitations of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, **THUS PRODUCING RIBS ON THE SURFACE**, and **ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS**, and **THUS TO BECOME QUITE USELESS**.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from **ALL IMITATIONS** by its **ENTIRE FREEDOM FROM RIBS** of any description on its surface, and by having an **IMPROVED METAL PIN VALVE** at the suction end **A** ; and it is acknowledged to be the **ONLY PERFECT ENEMA OBTAINABLE**.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

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Favourably noticed in "British Medical Journal," December 13, 1879 ; in the "Lancet," January 3, 1880 ; and in "British Medical Journal," September 30, 1882,

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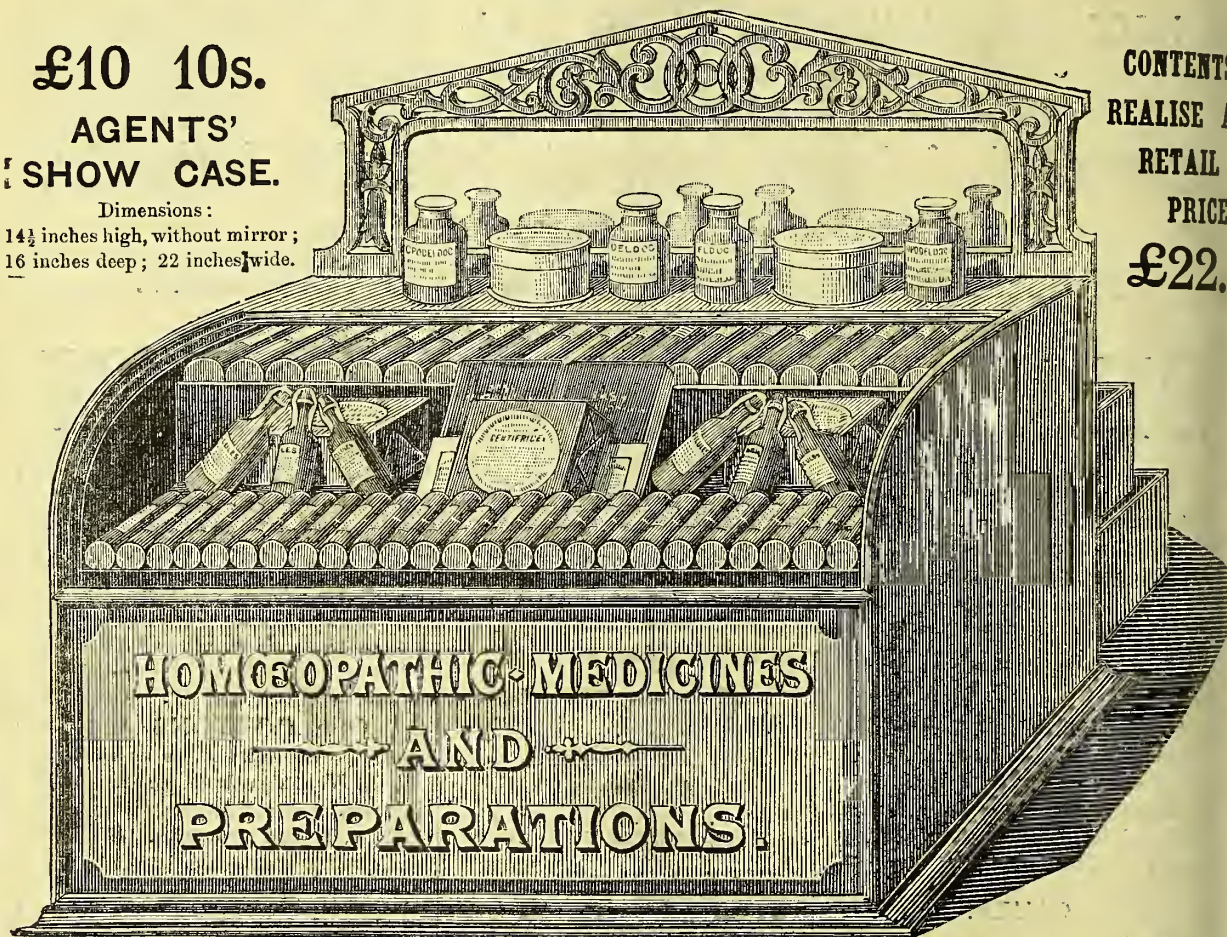
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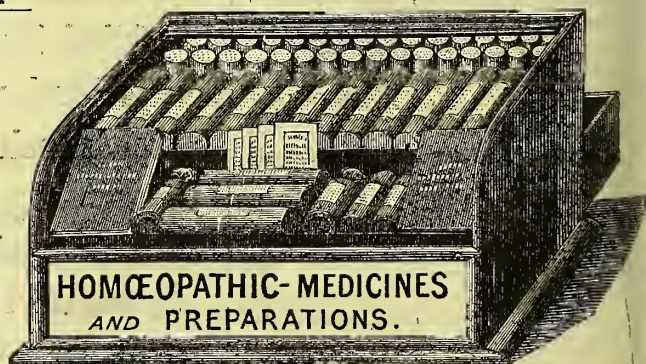


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